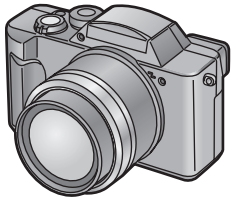
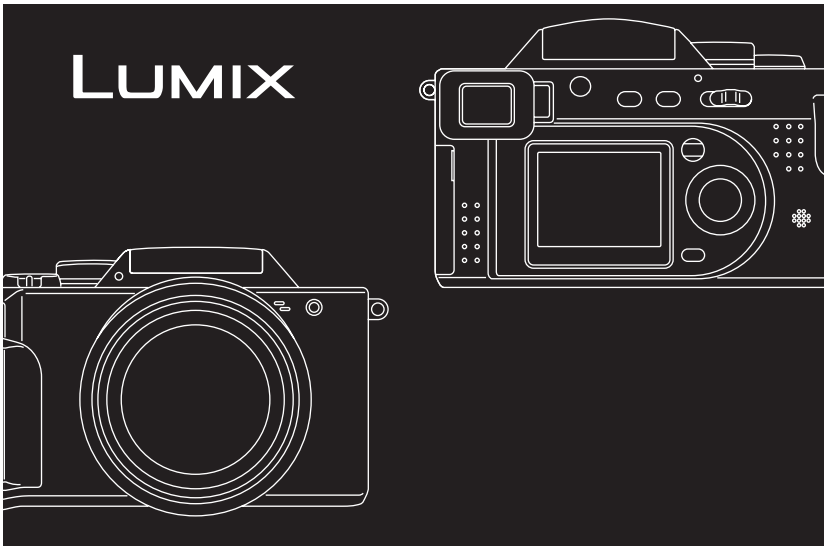
Panasonic



Digital Camera

Operating Instructions

Model No. DMC-FZ2A



SD™

LEICA
DC VARIO-ELMARIT

Before use, please read these instructions completely.

VQT0E74

Dear Customer,
We would like to take this opportunity to thank you for purchasing this Panasonic Digital Camera. Please read these Operating Instructions carefully and keep them handy for future reference.

Information for Your Safety

WARNING
TO REDUCE THE RISK OF FIRE OR SHOCK HAZARD AND ANNOYING INTERFERENCE, USE ONLY THE RECOMMENDED ACCESSORIES AND DO NOT EXPOSE THIS EQUIPMENT TO RAIN OR MOISTURE. DO NOT REMOVE THE COVER (OR BACK); THERE ARE NO USER SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.

Carefully observe copyright laws. Recording of pre-recorded tapes or discs or other published or broadcast material for purposes other than your own private use may infringe copyright laws. Even for the purpose of private use, recording of certain material may be restricted.

- Please note that the actual controls and components, menu items, etc. of your Digital Camera may look somewhat different from those shown in the illustrations in these Operating Instructions.
- SD Logo is a trademark.
- Other names, company names, and product names printed in these instructions are trademarks or registered trademarks of the companies concerned.

IF THE POWER CORD OF THIS EQUIPMENT IS DAMAGED, IT MUST BE REPLACED WITH AN ELECTRICALLY APPROVED POWER CORD.

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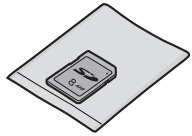
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Standard Accessories

Before using your camera, check the contents.

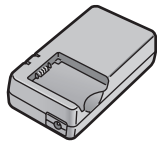
1 SD Memory Card (8 MB)
RP-SD008B
(In the text, it is indicated as “Card”)



2 Battery Pack
CGA-S002E
(In the text, it is indicated as “Battery”)



3 Battery Charger/AC Adaptor
DE-928B
(In the text, it is indicated as “AC Adaptor”)



4 AC Cable
K2CJ2DA00002



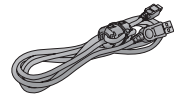
5 DC Cable
K2GH2DB00003



6 A/V Cable
K1V204C10001



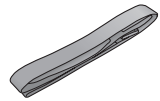
7 USB Connection Cable
K1HA05CD0004



8 CD-ROM
VFF0184



9 Strap
VFC4002



10 Lens Cap/Lens Cap String
VYK0W73



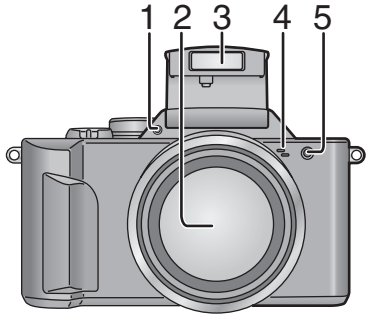
11 Lens Hood
VYQ2677 (Black)
VYQ2787 (Silver)



12 Lens Hood Adaptor
VYQ2583 (Black)
VYQ2782 (Silver)

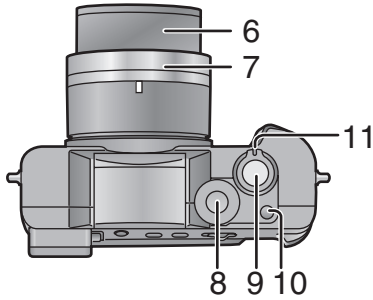


Names of the Components



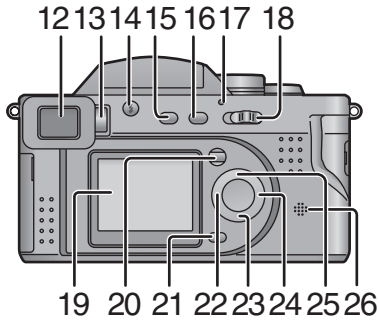
[Front View]

1 Flash Sensor (P37)
2 Lens
3 Flash
4 Microphone (P33, P42, P77)
5 Self-timer Indicator (P41)



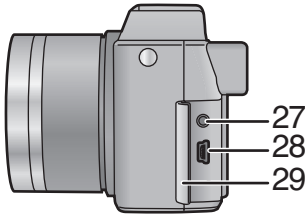
[Up View]

6 Lens Barrel
7 Lens Ring (P19, P63)
8 Mode Dial (P25)
9 Shutter Button (P24)
10 Single/Burst Mode Button (P62)
11 Zoom Lever (P34, P35)



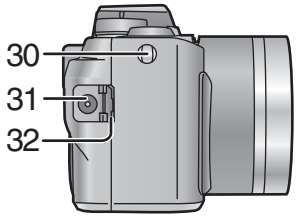
[Back View]

12 Viewfinder (P18, P23)
13 Diopter Adjustment Dial (P18)
14 Flash Open Button (P36)
15 DISPLAY Button (P23)
16 FOCUS Button (P39)
17 Power Indicator (P17)
18 Power Switch (P17)
19 LCD Monitor (P8)
20 MENU Button (P27)
21 Delete Button (P32, P69)
22 ◄/Self-timer Button (P41)
23 ▼/REVIEW/SET Button (P32)
24 ►/Flash Mode Button (P36)
25 ▲/Exposure Compensation (P53)/Auto Bracket (P54)/ White Balance Fine Adjustment (P60) Button
26 Speaker (P65)



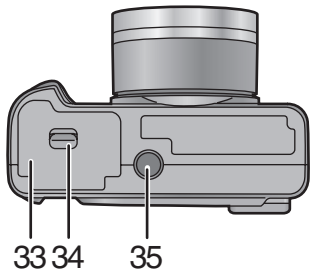
[Left View]

27 A/V OUT Socket (P87)
28 USB Socket (5pin) (P88)
29 Terminal Door



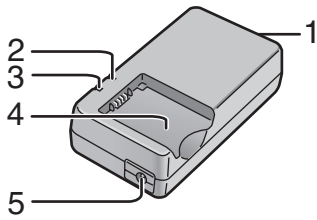
[Right View]

30 Strap Eyelet (P21)
31 DC IN Socket (P14)
32 DC IN Terminal Door (P14)



[Bottom View]

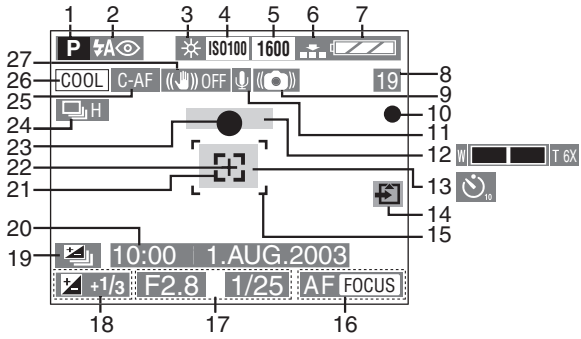
33 Memory Card/Battery Door (P12, P15)
34 Memory Card/Battery Door Open Lever (P12, P15)
35 Tripod Receptacle



[Battery Charger/AC Adaptor]

1 AC Input Terminal
2 [POWER] Indicator
3 [CHARGE] Indicator
4 Battery Attachment Part
5 DC Output Terminal

LCD Monitor Display/Viewfinder Display



[In recording]

1 REC mode

2 Flash mode (P36)

3 White balance (P58)

4 ISO sensitivity (P61)

5 Picture size (P43)

6 Quality (data compression ratio) (P44)

7 Battery indicator (P13)
(When using AC adaptor this is not displayed)

8 Frame/Time remain
In motion image mode: e.g. 11S

9 Shutter Jiggle alert (P30)

10 Recording indication

11 Audio REC (P42)

12 Zoom (P34, P35)

13 Self-timer mode (P41)

14 Card access indication (P16)

15 AF area (P29)

16 AF Trigger (P39)

17 Aperture indication/Shutter speed indication (P29)

18 Exposure Compensation (P53)

19 Auto Bracket (P54)

20 Current date and time (P28)
- It is displayed for about 5 seconds after turning on the power or setting the clock.

21 []: Spot AF area (P52)

22 +: Spot metering target (P52)

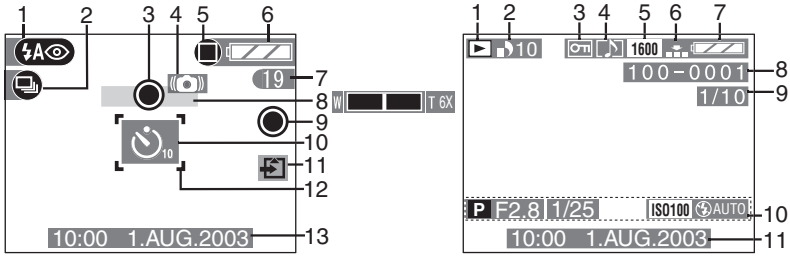
23 Focus indication (P29)

24 Burst mode (P62)

25 Continuous AF (P40)

26 Color Effect mode (P56)

27 Optical Image Stabilizer (OFF) (P38)



[In recording in Simple mode]

1 Flash mode (P36)

2 Burst mode (P62)

3 Focus indication (P31)

4 Shutter Jiggle alert (P30)

5 Picture mode (P31)

6 Battery indicator (P13)

7 Frame remain

8 Zoom (P34)

9 Recording indication

10 Self-timer mode (P41)

11 Card access indication (P16)

12 AF area (P29)

13 Current date and time (P28)
- It is displayed for about 5 seconds after turning on the power or setting the clock.

[In playback]

1 Playback mode

2 DPOF (P71)
(White):
DPOF setting for printing
(Green):
DPOF setting for Slide Show
(Green with DPOF number):
DPOF setting for printing and Slide Show

3 Protected image (P74)

4 Image with audio (P65)

5 Picture size (P43)

6 Quality (data compression ratio) (P44)
: In motion image mode

In simple mode:
: ENLARGE
: 4″×6″/10×15cm
: INTERNET

7 Battery indicator (P13)

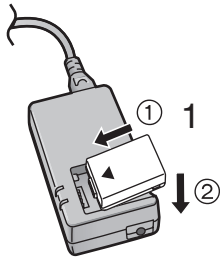
8 Folder/File number

9 Page/Total images

10 REC data
- It will be displayed when the [DISPLAY] button is pressed.

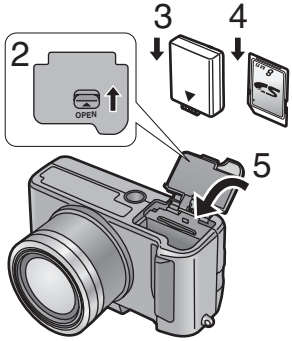
11 Recorded date and time

Quick Guide



Prepare following items.
- Camera
- Battery
- Card
- AC adaptor
- AC cable

- Check that the power switch is set to [OFF] and the lens is stored.
- Close the flash. (P37)



[Preparation]

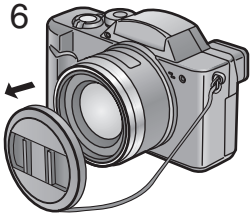
1 **Charge the battery. (① → ②) (P11)**
- Charging is finished in about 90 minutes.

2 **Slide the lever to the direction of the arrow to open the Memory Card/ Battery door.**

3 **Insert the battery into the camera. (P12)**

4 **Insert the Card into the camera. (P15)**

5 **Close the Memory Card/Battery door.**



[Recording]

6 **Remove the lens cap.**

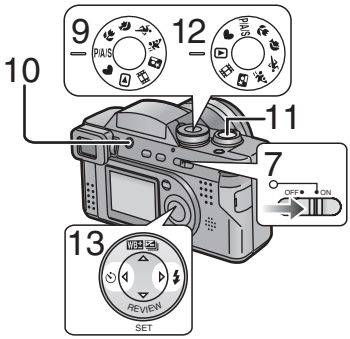
7 **Set the power switch to [ON]. (P17)**

8 **Set date/time. (P28)**

9 **Set the mode dial to [P/A/S]. (P25)**

10 **(When you want to take a picture with the flash)**
Press [OPEN] button to open the Flash. (P36)

11 **Take a picture. (P24, P29)**



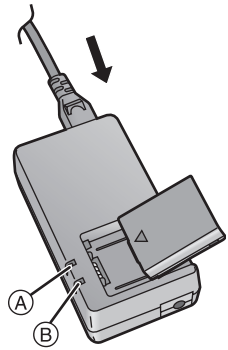
[Playback]

12 **Set the mode dial to playback [▶]. (P25)**

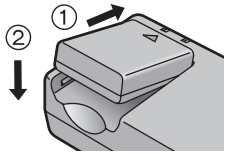
13 **Press ◀/▶ to select the picture you want to view. (P64)**

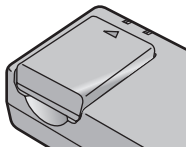
Charging the Battery

1

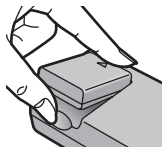


2



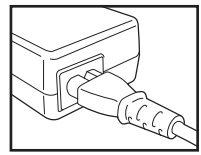


4



1 **Connect the AC cable.**

- The AC cable does not fit entirely into the AC input terminal. A gap will remain as shown below.



- The [POWER] indicator Ⓐ lights.

THE SOCKET OUTLET SHALL BE INSTALLED NEAR THE EQUIPMENT AND SHALL BE EASILY ACCESSIBLE.

2 **Attach the battery to the AC adaptor. (① → ②)**

- The [CHARGE] indicator Ⓑ lights and charging starts.

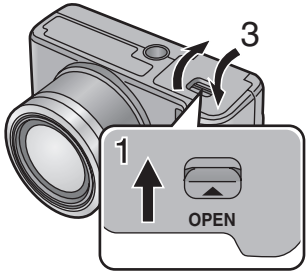
3 **When the [CHARGE] indicator Ⓑ turns off, charging is finished.**

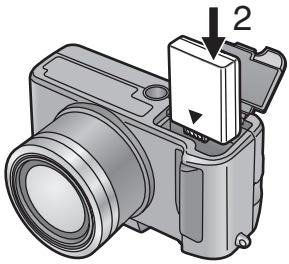
- Charging is finished in about 90 minutes.

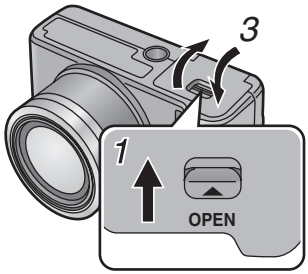
4 **Remove the battery from the AC adaptor.**

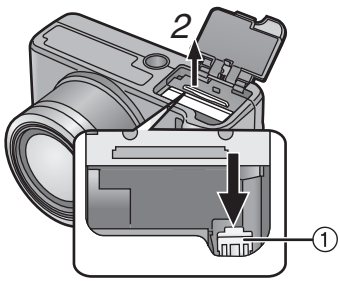
- The battery cannot be charged when the DC cable is connected to the AC adaptor.
- After use, be sure to disconnect the AC cable.
- The battery becomes warm after use/ charge or during the charge. The camera also becomes warm during use. However, it is not malfunction.
- The battery/AC adaptor supplied with this camera is exclusively designed for this camera. Do not use with any other equipment.

Inserting the Battery









[Preparation]
- Check that the power switch is set to [OFF] and the lens is stored.
- Close the flash. (P37)

1 **Slide the lever to the direction of the arrow to open the Memory Card/ battery door.**

2 **Insert the charged battery all the way in, until it is locked.**

3 **Close the Memory Card/battery door.**

[Removing the battery]

1 **Open the Memory Card/battery door.**

2 **Slide the lock ① to the direction of the arrow to remove the battery.**

3 **Close the Memory Card/battery door.**

- If you will not be using the camera for a long time, remove the battery.
- When the fully charged battery is inserted to the camera more than one hour, the clock setting is memorized by the camera for about 24 hours even after the battery is removed. (The time may be shorter if the battery is not charged sufficiently)
 When the clock setting is cancelled, please set the date/time again. (P28)
- When the card is being read, do not open the Memory Card/battery door.
- The battery supplied with this camera is exclusively designed for this camera. Do not use with any other equipment.

CAUTION
Danger of explosion if battery is incorrectly replaced. Replace only with the same or equivalent type recommended by the manufacturer. Dispose of used batteries according to the manufacturer's instructions.

■ Battery indicator

The remaining battery power is displayed on the LCD monitor/Viewfinder. (This is not displayed when using AC adaptor)

: The battery power is sufficient

: The remaining power is a little low

: The remaining power is low

: Recharge or replace the battery

■ Charging time and available recording time

(Recording condition)

- Temperature: 25°C/Humidity: 60%
- Shooting once every 30 seconds, flash every other shot.
- Using the supplied SD Memory Card (Recording size: 1600×1200/Quality: Fine/When deleting all pictures after full use)

	Charging time	Continuous recording/playback time (recordable number)
Supplied battery	Approx. 90 min.	Recording with LCD monitor Approx. 100 min. (equal to 200 still pictures)
		Recording with Viewfinder Approx. 120 min. (equal to 240 still pictures)
		Playback with LCD monitor Approx. 120 min.

The times shown in the table are approximate times. The times may vary depending on the condition.

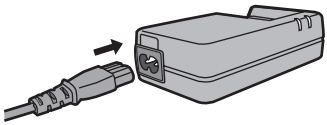
■ Charging environment and charging error

- Charge the battery in a place with a temperature of 10 – 35°C. (The battery should also be the same temperature)
- When charging starts, the [CHARGE] indicator lights. If, after charging starts, the [CHARGE] indicator blinks at about 1 second cycles, this indicates a charging error.
 In this case, remove the AC adaptor from the electrical outlet, remove the battery and check if both room and battery temperature is too low or high and then charge it again. If the problem persists, consult the dealer or your nearest servicentre.

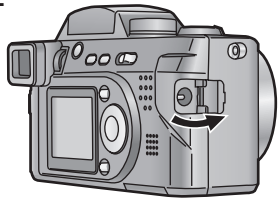
Using the AC Adaptor

If you use an AC adaptor and connect it to an electrical outlet, you can use the camera without worrying about battery discharge.

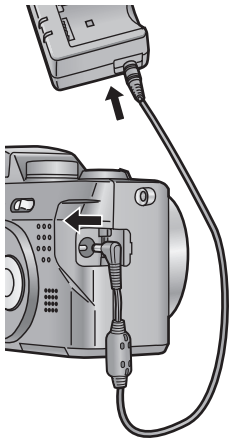
1



2



3



[Preparation]

- Check that the power switch is set to [OFF] and the lens is stored.

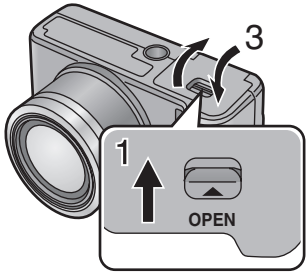
1 **Connect the AC cable.**

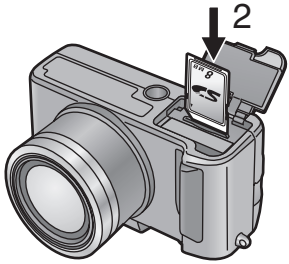
2 **Open the DC IN terminal door.**

3 **Connect the DC cable (supplied) to the camera.**

- The camera becomes warm during use. However, it is not malfunction.
- Disconnect the AC adaptor and DC cable when you do not use.
- The battery cannot be charged in the camera with the AC adaptor connected.
- Use the supplied DC cable.

Inserting the Card





[Preparation]

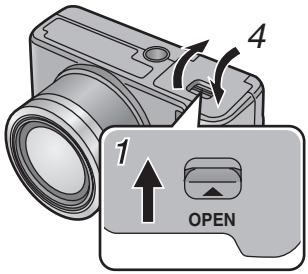
- Check that the power switch is set to [OFF] and the lens is stored.
- Close the flash. (P37)

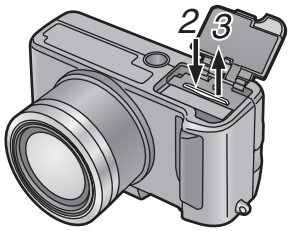
1 **Slide the lever to the direction of the arrow to open the Memory Card/ battery door.**

2 **Insert the card with the label facing the front of the camera.**

- Insert the card, pressing gently until it locks in place. If the card will not insert freely, it may be reversed. Do not force the card.
- Do not touch the connection terminals on the back side of the card.

3 **Close the Memory Card/battery door.**





[Removing the card]

1 **Open the Memory Card/battery door.**

2 **Press the card to release.**

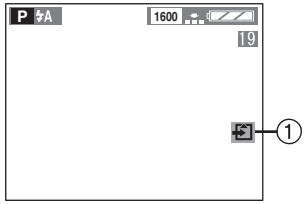
3 **Pull the card out.**

4 **Close the Memory Card/battery door.**

- If the Memory Card door cannot completely close, take the card out and insert it again.
- If the card cannot be fully inserted, verify whether the direction of the card is correct.
- We recommend that you use a Panasonic branded SD Memory Card. (Use only the genuine card)
- If the card is not fully inserted, the card may be damaged.

Access to the card

When the card is being accessed, the card access indication ① lights.



When the card access indication ① is lit, do not:

- turn the power [OFF].
- remove the battery or the card.
- pull the DC cable out if you use the AC adaptor.

The card and the card contents may be destroyed and the camera may not operate normally.

It is possible that images stored on the card can be damaged due to accidental erasure, static electricity, electrical noise or a defective card. We strongly suggest copying the images to your PC's hard drive using the USB connection explained on P88.

SD Memory Card (supplied) and MultiMediaCard (optional)

The SD Memory Card and MultiMediaCard are small, lightweight, removable external cards. The reading/writing speed of SD Memory Card is fast. The SD Memory Card is equipped with a write protection switch that can inhibit writing and formatting. (When the switch is moved towards the [LOCK] side, it is not possible to write or delete data on the card and format it. When the switch is unlocked, these functions become available)

SD Memory Card

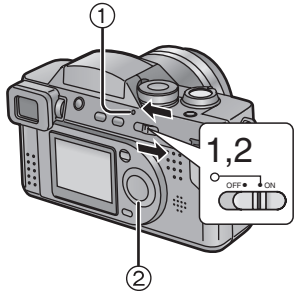


MultiMediaCard



- The reading/writing speed of MultiMediaCards is slower than SD cards. When MultiMediaCards are used, the performance of certain features may be slightly slower than advertised.
- After recording motion images using the MultiMediaCard, the card access indication may appear for a while, but this is not a malfunction.
- Keep the Memory Card out of reach of children to prevent swallowing.

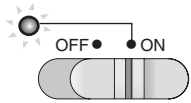
Turning Power on/off



1 **Set the power switch to [ON].**

- The power indicator ① lights.

2 **Set the power switch to [OFF].**



■ Power indicator

Lighting:

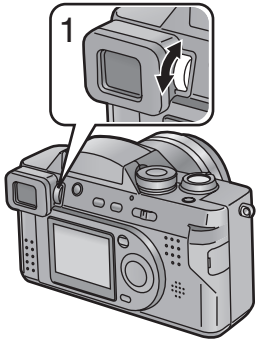
- When turning the power switch to [ON]

Blinking:

- When the Memory Card/battery door is opened
- When the card is not inserted
- When no space is left in the card
- When the card is protected during recording
- When setting the mode dial from the playback mode to recording mode with the lens cap attached
- When the remaining battery power is low (blink slowly)

- When the power switch is turned on, do not hold the lens cover. If the lens cover does not open, [SYSTEM ERROR] is displayed. Turn the power switch off and on.
- When turning on the power in the recording mode, do not put any obstacle in front of the lens.
- Please be sure to remove the lens cap before you switch on the camera in recording mode. If not, the message “REMOVE LENS CAP AND PRESS [SET] BUTTON” appears on the LCD monitor/Viewfinder. Please remove the lens cap and press ▼/[REVIEW/SET] button ②.
- Do not make a pressure on the lens when the lens barrel comes out. Confirm that the lens is put in when you wipe the lens.

Adjusting the Viewfinder (Diopter Adjustment)

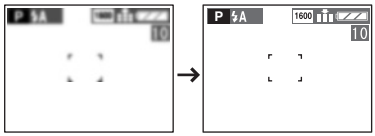


This camera's Viewfinder offers a diopter adjustment. It allows the user to make adjustments related to each users individual vision characteristics. Please adjust this feature before using the camera.
This feature is especially useful for the user who wears corrective lens because the lens is not needed.

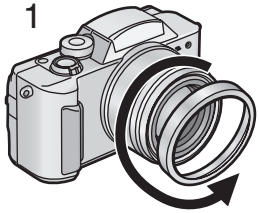
[Preparation]
- Press [DISPLAY] button to make the Viewfinder display.

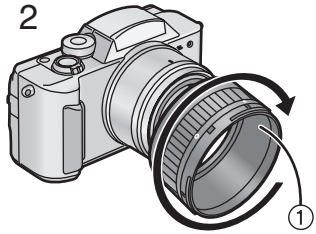
1 **Adjust the diopter, rotating the diopter adjustment dial.**

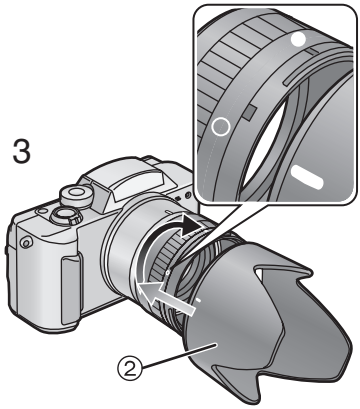
1

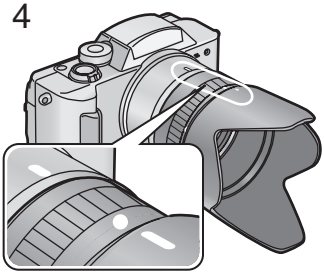


Attaching the Lens Hood









When attaching the lens hood during the shining daytime, the sunshine is interrupted directly and you can take the beautiful picture. You can prevent the ghost and the flare by using the lens hood.

[Preparation]
- Check that the power switch is set to [OFF] and the lens barrel is stored.
- Close the flash. (P37)

1 **Remove the lens ring.**

2 **Attach the lens hood adaptor ① (supplied).**
- The mark ○, ● will be the opposite side of the camera.

3 **Attach the lens hood ② (supplied).**
- Adjust the mark of the lens hood to the mark ○ of the lens hood adaptor. Then, rotate the lens hood to the mark ● and fix it.
- Be careful not to rotate the lens hood adaptor.

4 **Rotate the lens hood and the lens hood adaptor until the mark of the lens hood is fitted to the mark of the camera.**
- If the marks are not fitted, edges of the screen may become dark. (vignetting effect)

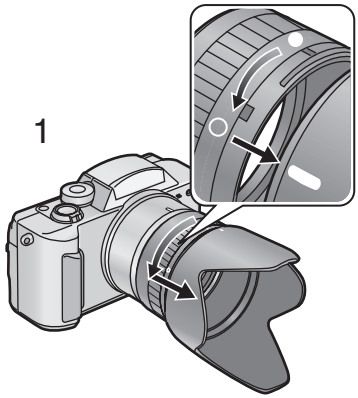
- When taking pictures with flash, flash light is interrupted by the lens hood and the bottom of the screen becomes dark. (vignetting effect)
 We recommend to remove the lens hood/ lens hood adaptor.
- Even when the lens hood is attached, you can attach the lens cap without the string.

■ Temporarily storing the lens hood

You can store the lens hood in the camera temporarily. Please do not take a picture with the lens hood stored.

[Preparation]

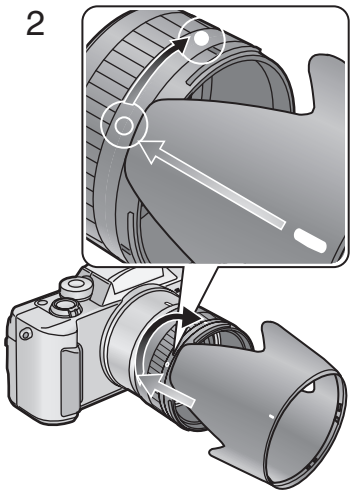
- Check that the power switch is set to [OFF] and the lens barrel is stored.
- Close the flash. (P37)



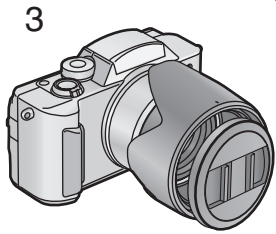
1 **Remove the lens hood.**

2 **Reverse the lens hood and attach it.**

- Attach the lens hood adjusting the mark ○ of the lens hood adaptor to the mark of the lens hood, and rotate the lens hood to the right.



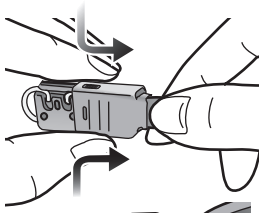
3 **Attach the lens cap.**



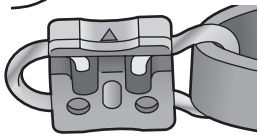
- When taking pictures with flash, flash light is interrupted by the lens hood and the bottom of the screen becomes dark. (vignetting effect)
 We recommend you to remove the lens hood/lens hood adaptor.
- Even when the lens hood is attached, you can attach the lens cap without the string.

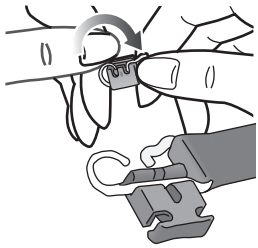
Attaching the Strap

1

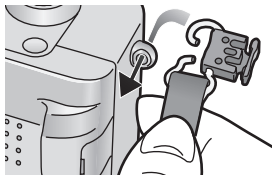


2

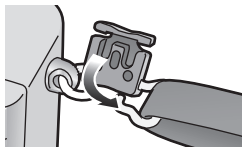




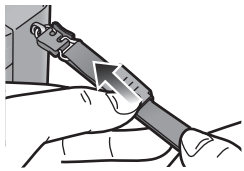
3

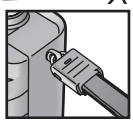


4



5





1 **Press both sides of the cover to put the metal fitting out of the cover.**

2 **Rotate the plastic part of the metal fitting to the direction of the arrow.**

- Please attach the plastic part to the metal fitting again if it detached.

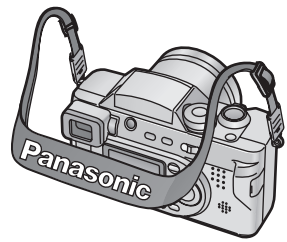
3 **Let the metal fitting pass through the eyelet of the camera.**

4 **Rotate the plastic part of the metal fitting to the opposite direction until it is locked.**

5 **Move the cover to the direction of the arrow, and attach it firmly.**

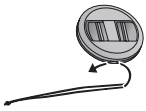
- Be sure to move the cover entirely until it is attached firmly.

6 **Attach the strap to the other side of the camera in the same way.**



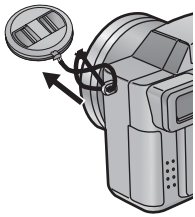
Attaching the Lens Cap

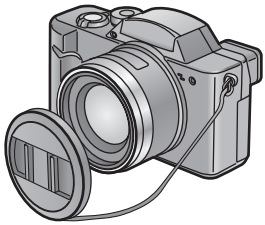
When you turn the camera [OFF] or draw back the lens, attach the supplied lens cap to protect the surface of the lens.

1


2


3


4


5


1 **Let the top of the string pass through the lens cap.**

2 **Let the opposite side of the string pass through the circular part of the string.**

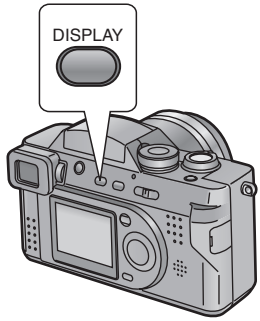
3 **Pull to the direction of the arrow.**

4 **Let the top of the lens cap string pass through the strap eyelet as shown in the picture.**

5 **Attach the lens cap.**

- Remove the lens cap before turning on the camera in the recording mode.
- Even when the lens hood is attached, you can attach the lens cap without the string.

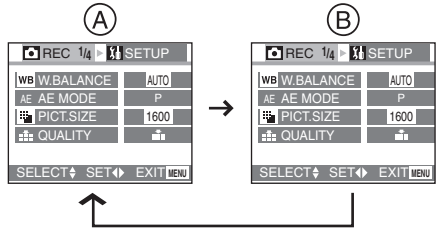
Using the LCD Monitor/Viewfinder



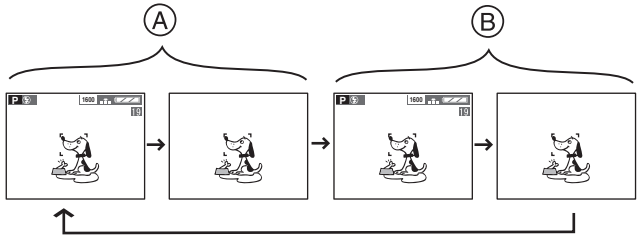
Every time you press the [DISPLAY] button, the display of the LCD monitor/Viewfinder changes as shown below.

[Menu display] [In multi/zoom playback]

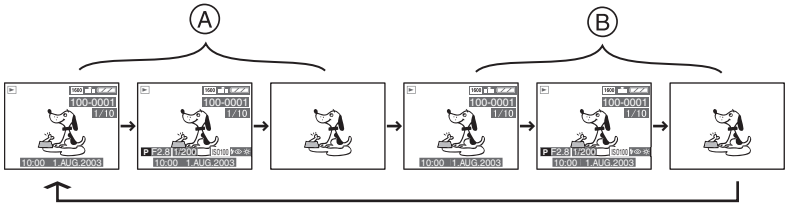
Ⓐ LCD monitor
Ⓑ Viewfinder



[In recording]

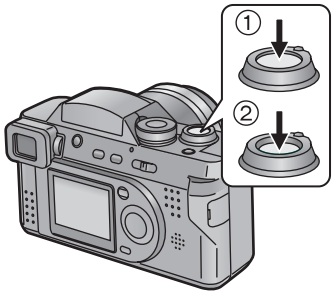


[In playback]



• When the LCD monitor is displayed, the Viewfinder turns off. (vice versa)

The Shutter Button (Pressing halfway/Pressing fully)



The shutter button is pressed in 2 steps: “pressing halfway” and “pressing fully”.

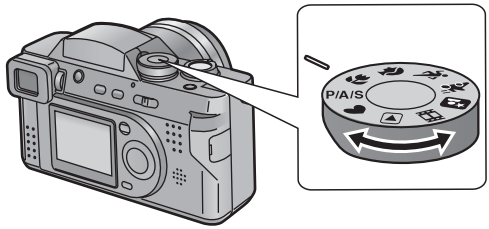
Pressing halfway ①
- Focus and exposure are locked.

Pressing fully ②
- The picture is captured. In motion image mode, the recording starts.

- You can adjust volume of the operational sound in the menu. (P83)
- If you press the shutter button fully in a single stroke, the captured picture may appear shaken or unfocused. (The camera may be moved during capturing)

The Mode Dial

You can choose a desired mode by the mode dial.



▶ : Playback (P64)
Playback recorded images.

♥ : Simple mode (P31)
You can take pictures easily because the necessary setting menus are minimized. This mode is for beginners.

P/A/S

P : Program AE (P29)
The shutter speed and the aperture value are automatically adjusted. In addition, more settings can be adjusted.

A : Aperture-priority AE (P45)
The shutter speed is adjusted automatically, according to the aperture value you set.

S : Shutter-priority AE (P46)
The aperture value is adjusted automatically, according to the shutter speed you set.

❀ : Macro mode (P47)
When you take pictures from a distance closer than 120 cm (Tele), set the camera in macro mode. This allows you to get closer to the subject up to 5 cm (Wide).

: Portrait mode (P48)
Portrait mode is the position for taking portrait shot and let the subject outstanding out of background.

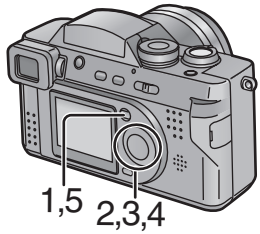
: Sports mode (P49)
When you take pictures of outdoor sports, this mode let you capture the still action photo easily.

: Panning mode (P50)
Panning is a technique of moving the camera tracking a subject in motion.
Using a slower shutter speed when tracking a subject, you can sharply photograph a subject in motion while blurring the background.

: Night portrait mode (P51)
When you take pictures of, for example, your friends in front of beautiful night illumination scenery, this mode let you get the appropriate exposure for your subject as well as the background, using flash and slow shutter.

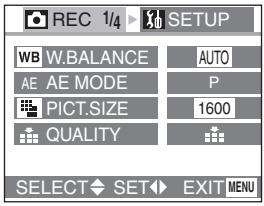
: Motion images (P33)
Use this mode when recording motion images.

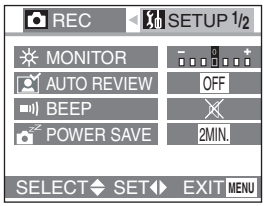
Operating the Menu

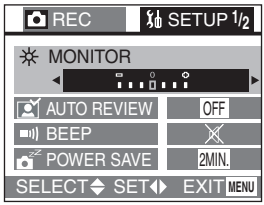


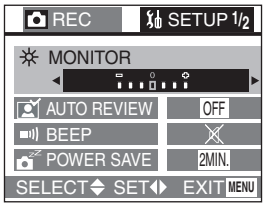
By operating the menu, you can set the settings of REC or playback mode. You can also set the date and time, the operational sound and various other settings. Follow these instructions.

[Preparation]
- Set the mode dial to the recording mode (except for [♥]) or the playback mode.

1


2


3


4


1 **Press the [MENU] button.**
- If you set the mode dial to the recording mode, the REC menu is displayed; if you set it to the playback mode, the playback menu is displayed.

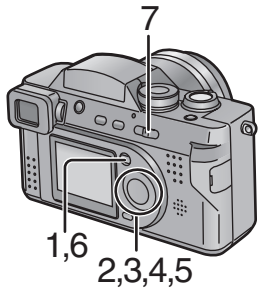
2 **Press ►.**

3 **Press ▲/▼ to choose the item.**

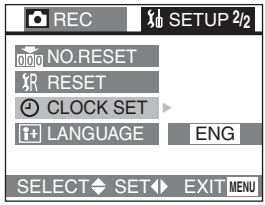
4 **Press ◄/► to set the item.**

5 **Press the [MENU] button.**
- The menu will disappear.

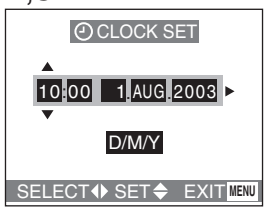
Setting the Date/Time (Clock Set)



3



4,5



If the message [PLEASE SET THE CLOCK] appears, set the date and time.
You can go to the setup menu by pressing the [MENU] button during the message is displayed.
You can set the year from 2003 to 2099. The 24-hour system is used.

1 **Press the [MENU] button.**

2 **Press ► to make the setup menu appear.**

• In simple mode, skip this step.

3 **Press ▲/▼ to select [CLOCK SET], and then press ►.**

4 **Press ▲/▼/◄/► to set date and time, and then press ►.**

5 **Press ▲/▼ to select [M/D/Y], [D/M/Y] or [Y/M/D].**

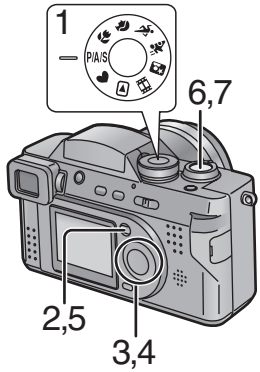
6 **Press the [MENU] button 2 times.**

• The menu will disappear.

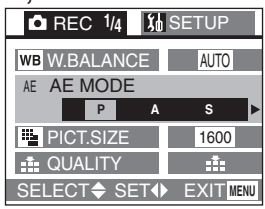
7 **Check if the date/time setting is displayed correctly, after turning the camera [OFF] and [ON].**

- It is possible to print the recording date.
 When using the [SD Viewer for DSC] in the supplied CD-ROM, you can print with the recording date by setting its position on the picture. For further information (software installation), read the supplied operating instructions for PC connection.
- When you want digital printings with the recording date, be sure to order the printing of the date. For further information, ask a photo studio, a store, etc. Depending on the store, it may not be printed.
- When the fully charged battery is inserted to the camera more than one hour, the clock setting is memorized by the camera for about 24 hours even after the battery is removed. (The time may be shorter if the battery is not charged sufficiently)
 When the clock setting is cancelled, please set the date and time again.

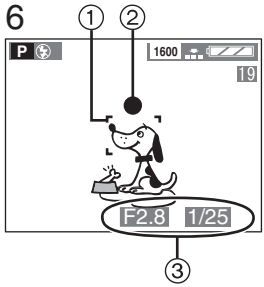
Taking Pictures



3,4



6



By only pressing the shutter button, the exposure (shutter speed and aperture value) will be automatically adjusted and the picture will be taken. (Refer to P45 for aperture-priority. Refer to P46 for shutter-priority.)

[Preparation]
- Insert the card. (P15)
- Set the power switch to [ON]. (P17)

1 **Set the mode dial to [P/A/S]. (P25)**

2 **Press the [MENU] button.**

3 **Press ▲/▼ to select [AE MODE].**

4 **Press ◄/► to set to [P].**

5 **Press the [MENU] button.**

- The menu will disappear.

6 **After centering the subject in the AF area ① on the LCD monitor/ Viewfinder, press the shutter button halfway.**

- When the focus is adjusted, the focus indication [●] ② appears.
- When the focus indication flashes, the focus is not adjusted. Press the shutter button halfway to adjust the focus again.
- The shutter speed and the aperture value ③ are automatically adjusted and displayed on the LCD monitor/ Viewfinder.
- When the subject is out of the AF area, use the AF/AE lock. (P55)

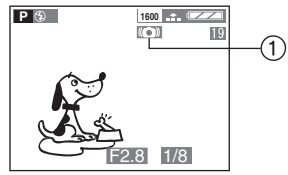
7 **Press the shutter button fully to take the picture.**

- After taking a picture, when the auto review (P82) is set to [ON], the picture is displayed on the LCD monitor/ Viewfinder for about 1 or 3 seconds.

- If you press the shutter button fully at once, the shutter jiggle may occur or the focus may not be adjusted properly.
- Even when the focus indication is displayed and the focus is properly adjusted, it will be cancelled if you release the shutter button.
 Press the button halfway again.
- When power saving time is set, if you do not operate the camera for a while, it is automatically turned off at the set time. To operate the camera again, press the shutter button or turn the power switch first to [OFF] and then to [ON]. (P84)
- The brightness of the LCD monitor/Viewfinder may differ from that of the recorded pictures. In particular, when taking pictures in dark places with a long time exposure, darkness appears on the LCD monitor/Viewfinder, but the recorded pictures are bright.
- If the exposure is not properly set, the color of the aperture value and the shutter speed on the LCD monitor/Viewfinder becomes red.
- In the following cases, the focus may not be adjusted properly.
 1 Recording a scene including subjects both near and far
 2 Recording a scene over the dirty glass
 3 Recording surrounding a shining scene
 4 Recording in a dark place
 5 Recording moving subject
 6 Recording a subject with a little contrast
 7 Recording with the shutter jiggle
- We recommend that you set the clock setting again before taking pictures.
- When the brightness of the LCD monitor/Viewfinder changes such as zooming or panning, you may hear a click sound from the lens or the image on the LCD monitor/Viewfinder may change suddenly; this is not a malfunction. The sound is caused by the camera automatically adjusting the aperture value.
- When pressing the shutter button halfway, the LCD monitor/Viewfinder may become dark or bright for a moment; this is not a malfunction. This arises from adjusting the aperture value.
- When the power is [OFF], this camera chatters if it is shaken. However, this is not a malfunction.

About the shutter jiggle

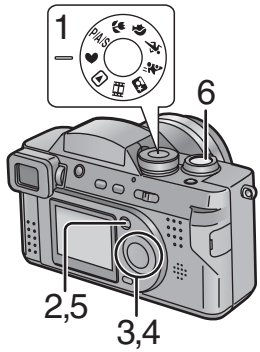
- Be careful to prevent the shutter jiggle when you press the shutter button.
- When the shutter jiggle is easy to happen, the shutter jiggle alert ① appears.
- We recommend you to use a tripod when the shutter jiggle alert appears.



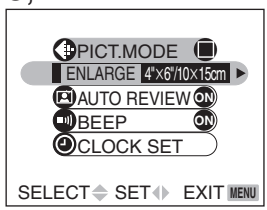
Taking Pictures in Simple Mode

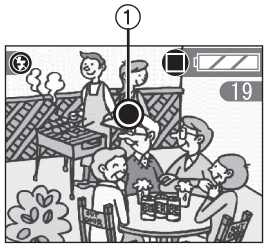
- Offering simplified menu for ease of use.
- The picture size is easy to select.
- The icons on the display are larger.

We recommend you to use this mode when you ask someone to take a picture.



3,4





1 **Set the mode dial to Simple mode [♥].**

2 **Press the [MENU] button.**

3 **Press ▲/▼ to select [PICT.MODE].**

- [AUTO REVIEW] (P82)
- [BEEP] (P83)
- [CLOCK SET] (P28)

4 **Press ◄/► to select [ENLARGE], [4″×6″/10×15cm] or [INTERNET].**

ENLARGE	1600×1200	Fine
4″×6″/10×15cm	1280×960	Fine
INTERNET	640×480	Standard

- [ENLARGE] selection is intended for situations when large printing is desired. The camera is preset to [1600×1200] in [Fine] picture mode.
- [4″×6″/10×15cm] selection will offer an easy way to produce small “general purpose” prints.
- [INTERNET] selection favors smaller file size, optimized for home page and e-mail use.

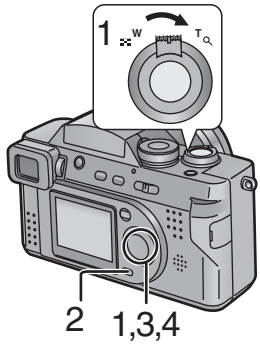
5 **Press the [MENU] button.**

- The menu will disappear.

6 **Take a picture.**

- The burst mode is available only with the low speed. (P62)
- If the distance between the camera and the object is beyond the recordable range (Tele: 120 cm – ∞, Wide: 5 cm – ∞), the focus may not be adjusted properly even the focus indication ① is lighting.
- The settings (except for the clock setting) of the simple mode will not be applied to the other recording modes.
- Only the quality (data compression ratio) cannot be changed on the [PICT.MODE] menu.

Checking the Captured Picture (Review)



After taking a picture, when auto review (P82) is set to [1SEC.]/[3SEC.], the captured picture is displayed on the LCD monitor/Viewfinder for about 1 or 3 seconds, but you can also check the picture by following the methods shown below.

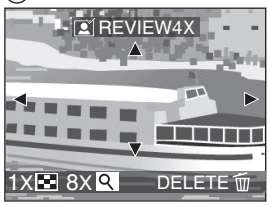
1 **After taking a picture, press the ▼/[REVIEW/SET] button.**

- You can check the previous or following picture with ◄/►.
- The last captured picture is displayed for about 5 seconds. If you rotate the zoom lever towards [🔍], the captured picture is zoomed 4 times (Ⓐ) and 8 times if you rotate it once again. You can also change the position with ▲/▼/◄/►.

1



Ⓐ



■ Erasing the captured picture during the review

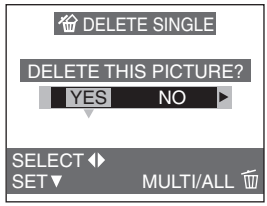
2 **Press [🗑].**

3 **When the message [DELETE THIS PICTURE?] is displayed, press ◄ to select [YES].**

4 **Press the ▼/[REVIEW/SET] button.**

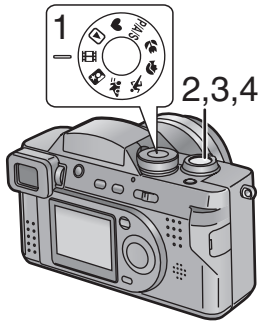
- The picture is erased.
- Once erased, pictures cannot be recovered.
- Multi images or all images can be deleted. Read P70 to operate them.

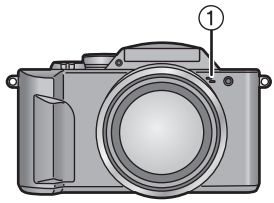
3

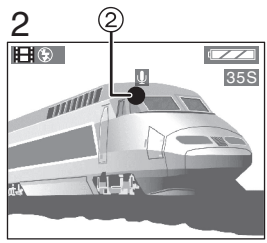


- Press the shutter button halfway to cancel the review.
- In motion image mode [🎞], review cannot be used.

Recording Motion Images







With this camera you can also record motion images. (If using the supplied 8 MB SD Memory Card, it is possible to record for about 35 seconds)

1 **Set the mode dial to motion image mode [🎞].**

2 **Center the subject on the LCD monitor/Viewfinder and press the shutter button halfway.**

- When the focus is adjusted, the focus indication ② [●] appears.

3 **By pressing the shutter button fully, the recording starts.**

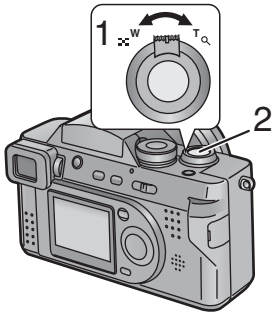
- The audio REC starts simultaneously. (① Microphone)

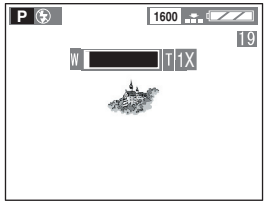
4 **By pressing the shutter button fully again, recording stops.**

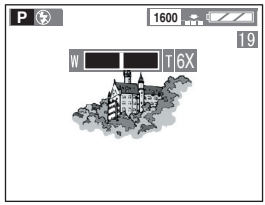
- If during the recording the memory of the card becomes full, the recording is stopped automatically.

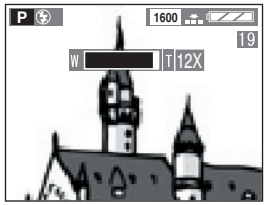
- The picture size is fixed to 320×240 pixels.
- The remaining time displayed on the LCD monitor/Viewfinder is an approximation.
- You cannot record motion images without audio.
- If using the MultiMediaCard, after recording motion images, the card access indication may appear for a while, but this is not a malfunction.
- After recording starts, the auto focus/zoom/white balance/aperture value are locked (with the first frame).
- Recording could suddenly stop when recording motion images with some kinds of the card.
- When the motion image recorded with this camera is played back on other equipments, the quality of pictures and sounds may be deteriorated or pictures may not be able to be played back.
- In motion image mode [🎞], review cannot be used.

Using the Optical Zoom









With this function, you can make people and subjects closer, and landscapes can be captured in wide angle, with the 12 times optical zoom.

[Preparation]
- Set the mode dial except for [▶]. (P25)

1 **Aim the camera at the subject and adjust the size with the zoom lever.**

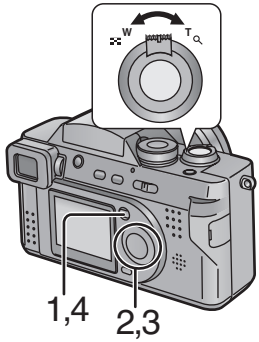
To make subjects closer (Tele): Rotate towards T.

To make subjects wider (Wide angle): Rotate towards W.

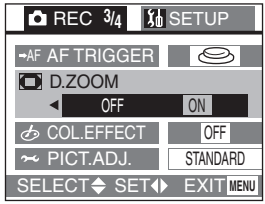
2 **Take a picture.**

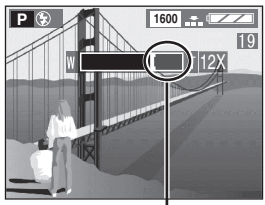
- The focus is adjusted at a distance of more than 120 cm (Tele)/30 cm (Wide). For details on simple mode/aperture-priority AE/ shutter-priority AE/macro mode, read P31/ P45/P46/P47.
- The picture may be slightly distorted according to the lens. The distortion will increase as you make subjects wider and closer.
- The indicated zoom magnification is an approximation.
- When using the zoom lens at high magnification the quality of the picture can be enhanced if a tripod is used. At high magnification, even small movements can cause a slight decrease in picture sharpness.

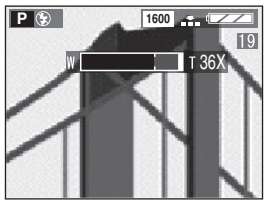
Using the Digital Zoom



2,3







It is possible to further magnify a subject already magnified 12 times with the optical zoom by 3 more times, with the digital zoom, thereby reaching a maximum of 36 times. (In the burst mode/auto bracket, the digital zoom magnify 2 more times, reaching a maximum of 24 times)

[Preparation]
- Set the mode dial except for [▶]/[♥]. (P25)

1 **Press the [MENU] button.**

2 **Press ▲/▼ to select [D.ZOOM].**

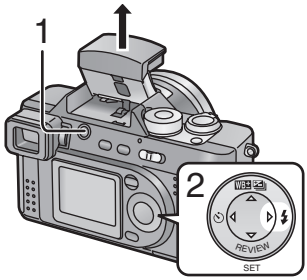
3 **Press ► to set to [ON].**

4 **Press the [MENU] button.**
- The menu will disappear.

- The zoom adjustment and recording method are the same as in “Using the Optical Zoom”. (P34)
- When the digital zoom is set to [ON], the digital zoom indication ① appears.
- When entering the digital zoom range, the zoom bar will pause.

- When using the digital zoom the picture quality becomes deteriorated.
- In the digital zoom range, the stabilizer function may be difficult to be effective.
- We recommend to use a tripod in the digital zoom range.
- The indicated zoom magnification is an approximation.

Taking Pictures with the Built-in Flash



The shutter speed is set between 1/30th and 1/2000th. (except in Slow sync./Red-eye reduction [] and exposure compensation)

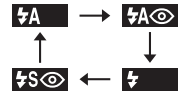
[Preparation]

- Set the mode dial except for []/[]. (P25)

1 **Press [OPEN] button to open the Flash.**

2 **Press [].**

- Every time you press [], the available settings will appear as shown below. (There are settings that cannot be set according to the REC mode. Those that cannot be set are not displayed when pressing []. Refer to the table on the left)



	—	○	○	—	○
P	○	○	○	○	○
A	○	○	○	○	○
S	○	○	○	—	○
	○	○	○	○	○
	○	○	○	—	○
	○	○	○	—	○
	○	○	○	—	○
	—	—	—	○	○
	—	—	—	—	○

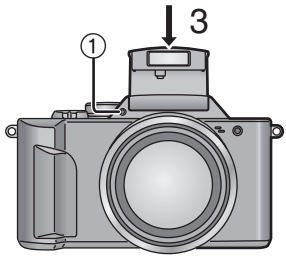
: AUTO
The flash fires automatically according to the lighting condition.

: AUTO/Red-eye reduction
The flash fires automatically according to the recording situation.
It reduces the red-eye phenomenon (when a subject's eyes appear red in flash light).
Use it when you take pictures of people or animals in dark places.

: Forced ON
The flash fires in every capturing.
Use this setting when your subject is backlighted or under fluorescent light.

: Slow sync./Red-eye reduction
When you take a picture with a dark background landscape, it makes the flash fire and the shutter speed slow (from 1 second to 1/2000th), so that the dark background landscape will become bright.
Simultaneously it reduces the red-eye phenomenon.
We recommend you to use a tripod.

: Forced OFF
When you do not open the flash, this mode is set. Even in dark places, the flash does not fire.
Set it when you take pictures in places where using flash is not allowed.
In this time, the shutter speed is set between 1/8th and 1/2000th. (except in night portrait mode [])



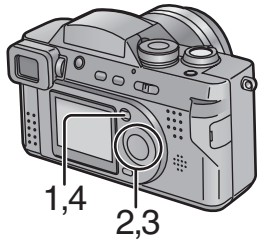
To close the flash

3 **Press to the direction of the arrow until it clicks.**

- Be sure to close the flash when you do not use it.

- Do not stare the flash light nearby when using the flash.
- If you bring the flash too close to the subjects, they may be distorted or discolored by its heat and lighting.
- The available flash range is about 30 cm – 2.1 m. (When setting to ISO100)
- If the subject is too close when using the flash, the image may be over exposed.
- When the shutter jiggle alert is displayed within the available flash range, we recommend using the flash.
- Do not cover the flash sensor ① with your fingers or any other item. Otherwise the picture will not be exposed properly. Similarly, do not cover the flash light.
- In motion image mode [] or when the flash is closed, setting is fixed to the Forced OFF [].
- When you set to burst mode or auto bracket, only 1 picture is taken for every flash firing.
- In night portrait mode [], setting is fixed to Slow sync./Red-eye reduction [].
- When you are using the flash, we recommend removing the lens hood. In some case it my not allow the scene to be illuminated properly.
- The flash indication becomes red when pressing the shutter button halfway.
- During the flash is charged, the flash indication blinks red, and you cannot take a picture even when you press the shutter button fully.
- Be sure to open the flash entirely when using the flash.
- When taking a picture with the flash, the white balance will be automatically adjusted (only when in [AUTO], halogen mode []), but the white balance may not be properly adjusted when the flash light is insufficient.
- When taking a picture with the flash after setting the white balance manually, the white balance may not be properly adjusted. We recommend to set the white balance to [AUTO] when using the flash. (P58)

Using the Optical Image Stabilizer



When using this function at the scene the shutter jiggle is easy to happen, you can minimize the shutter jiggle.

[Preparation]
- Set the mode dial except for [▶]/[♥]. (P25)

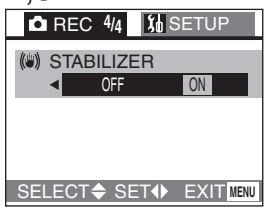
1 **Press the [MENU] button.**

2 **Press ▲/▼ to select [STABILIZER].**

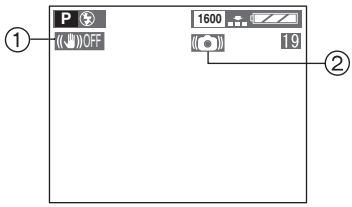
3 **Press ◄/► to select [ON]/[OFF].**

4 **Press the [MENU] button.**
- The menu will disappear.
- Only when selecting [OFF], the indication [((OFF] ① will appear.

2,3

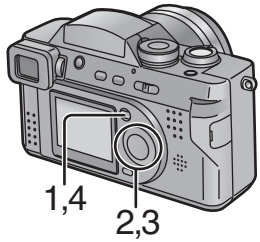


4



- When too much jiggle happens or taking a picture chasing the moving subject, it may not be stabilized.
- The stabilizer function may be difficult to be effective in the digital zoom zone.
- When taking pictures with slow shutter speed such as night portrait, the stabilizer function may be difficult to be effective.
- When the zoom lever is close to T and the shutter speed is slower than 1/125th, the shutter jiggle alert ② appears.
- We recommend to use a tripod when the shutter jiggle alert appears.
- In simple mode [♥], the stabilizer function is fixed to [ON].

Using the AF Trigger



There are 2 ways to set the auto focus; pressing the shutter button halfway or pressing the [FOCUS] button.
Using the [FOCUS] button is effective to prefocus the camera.

[Preparation]
• Set the mode dial except for [▶]/[♥]. (P25)

1 **Press the [MENU] button.**

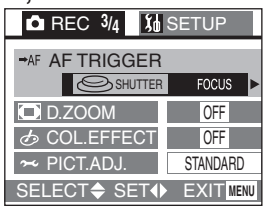
2 **Press ▲/▼ to select [AF TRIGGER].**

3 **Press ◀/▶ to select [SHUTTER] or [FOCUS].**

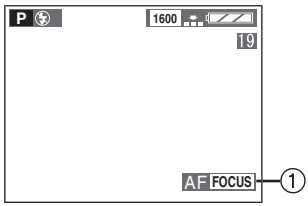
- SHUTTER Shutter button:
 You can set the auto focus by pressing the shutter button halfway.
- FOCUS [FOCUS] button:
 You can set the auto focus by pressing the [FOCUS] button.

4 **Press the [MENU] button.**
- The menu will disapear.
- Only when [FOCUS] is selected, the [AF FOCUS] indication ① is displayed on the LCD monitor/Viewfinder.

2,3



4



■ Using the [FOCUS] button to prefocus the camera

The prefocus technique is effective when you try to take a picture of a subject which is moving so fast that the focus is difficult to be adjusted automatically.
(For example, taking pictures with the panning mode) (P50)

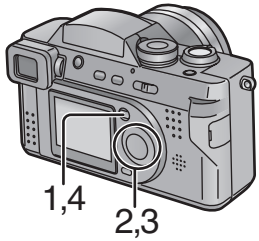
1 **Set [AF TRIGGER] to [FOCUS].**

2 **Center the subject in the AF area (P29), and press the [FOCUS] button.**

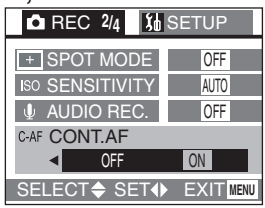
• AF trigger will not operate until you press the [FOCUS] button again, even if you press the shutter button halfway.

• When setting [CONT.AF] to [ON], [AF TRIGGER] is fixed to [SHUTTER].
• In simple mode [♥], [AF TRIGGER] is fixed to [SHUTTER].

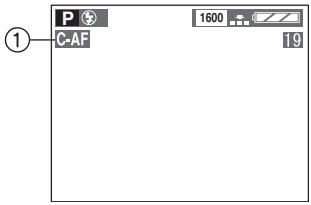
Using the Continuous AF



2,3



4



Using this function, AF is continuously working without pressing shutter button halfway.
So that the time required for the focusing, after pressing shutter button halfway, may be reduced.

[Preparation]
- Set the mode dial except for [▶]/[♥]. (P25)

1 **Press the [MENU] button.**

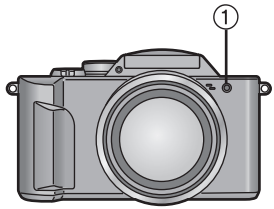
2 **Press ▲/▼ to select [CONT.AF].**

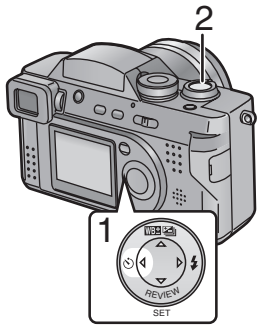
3 **Press ► to select [ON].**

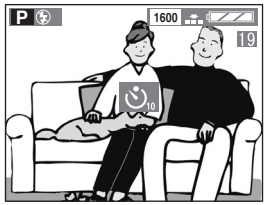
4 **Press the [MENU] button.**
- The menu will disappear.
- The indication [C-AF] ① will appear.

- When setting [CONT.AF] to [ON], [AF TRIGGER] is fixed to [SHUTTER].
- In simple mode [♥], [CONT.AF] is fixed to [ON].
- The battery consumes early.
- It may take time to adjust the focus after zooming (Wide → Tele) or changing the subject suddenly.
- Press the shutter button halfway again to adjust the focus when the focus is difficult to be adjusted.

Taking Pictures with the Self-timer







When you set the self-timer, the picture is automatically taken after 10 seconds (or 2 seconds).

[Preparation]
- Set the mode dial except for [▶]/[🎞]. (P25)

1 **Press ◄.**

- Every time you press it, what is displayed changes as shown below.



: Self-timer set to 10 seconds

: Self-timer set to 2 seconds

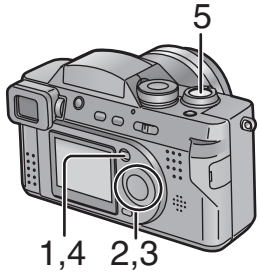
When these indicators are not displayed, self-timer setting is cancelled.

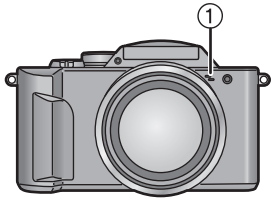
2 **Press the shutter button fully.**

- The self-timer indicator ① blinks and the shutter is activated after 10 seconds (or 2 seconds).
- When setting the self-timer, the focus and exposure are not adjusted by pressing the shutter button halfway. When pressing the button fully, they are automatically adjusted just before recording.
- If you press the [MENU] button during the self-timer is set, the self-timer setting is cancelled.

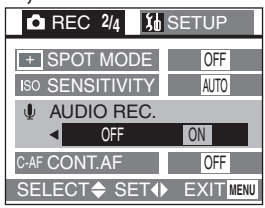
- In simple mode [♥], you can only set to 10 seconds [].
- In burst mode, the self-timer setting applies to the first picture only.
- We recommend you to use a tripod when setting the self-timer.

Taking Pictures with Audio

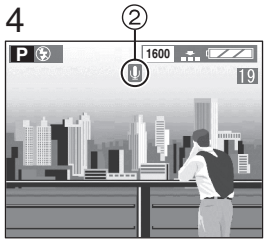




2,3



4



You can take a picture with audio for 5 seconds.

[Preparation]
- Set the mode dial except for [▶]/[♥]/[🎞]. (P25)

1 **Press the [MENU] button.**

2 **Press ▲/▼ to select [AUDIO REC.].**

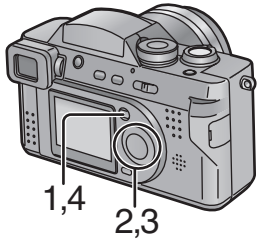
3 **Press ► to select [ON].**

4 **Press the [MENU] button.**
- The menu will disappear.
- This icon [🎙] ② will appear on the LCD monitor/Viewfinder.

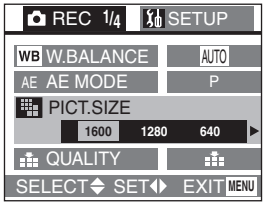
5 **Press the shutter button fully and take a picture.**
- It is not necessary to continue pressing the shutter button.
- Audio is recorded from the built-in microphone ① of the camera.
- 5 seconds later, the audio recording is stopped automatically.
- If you press the [MENU] button during the audio recording, it will be cancelled.

- Using this feature will result in fewer images being able to be saved.
- When setting to auto bracket/burst mode, it is not possible to take a picture with audio. (P54, P62)
- The picture with audio cannot be resized or trimmed. (P78, P79)

Changing the Picture Size



2,3



You can choose among 3 picture size settings.

[Preparation]
- Set the mode dial except for [▶]/[♥]/[🎞]. (P25)

1 **Press the [MENU] button.**

2 **Press ▲/▼ to select [PICT.SIZE].**

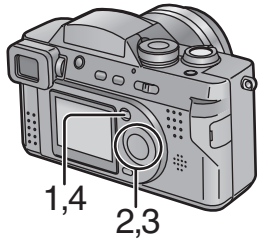
3 **Press ◀/▶ to select the picture size.**
- [1600]: 1600×1200 pixels
- [1280]: 1280×960 pixels
- [640]: 640×480 pixels

4 **Press the [MENU] button.**
- The menu will disappear.

- In motion image mode [🎞], the picture size is fixed to 320×240 pixels.
- The smaller you set the picture size, the more pictures you can store on the Memory Card. In addition, a small data volume allows you attach the picture to an e-mail or post it on a web site more easily.
- If you set a larger picture size, the printed picture will be clearer, especially with larger sized prints.

Changing the Quality (Data Compression Ratio)

You can choose among 2 quality levels. (Data Compression Ratio)



[Preparation]
- Set the mode dial except for [▶]/[♥]/[🎞]. (P25)

1 **Press the [MENU] button.**

2 **Press ▲/▼ to select [QUALITY].**

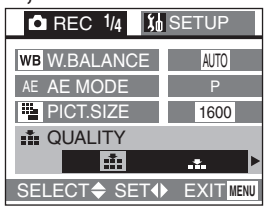
3 **Press ◀/▶ to select the quality. (Data Compression Ratio)**

- : Fine (Low compression)
It gives priority to picture quality to record high quality pictures.
- : Standard (Standard compression)
It gives priority to the number of recordable pictures and records standard quality pictures.

4 **Press the [MENU] button.**

- The menu will disappear.

2,3

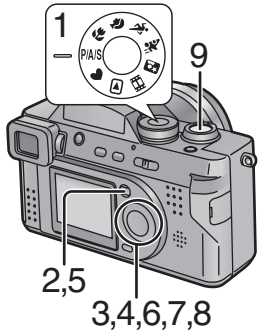


- Picture size/Quality and number of recordable pictures (8 MB/64 MB SD Memory Card)

Picture size	8 MB (supplied)		64 MB (optional)	
1600×1200	6	13	64	125
1280×960	10	20	96	184
640×480	34	68	298	553
In motion image mode	35 seconds		350 seconds	

- The numbers shown in the table are approximate numbers. If you mix fine quality and standard quality, the number of recordable pictures changes.
- It may happen that pictures appear like a mosaic depending on the scene characteristics.
- Remaining frame which is displayed on the LCD monitor/Viewfinder may not correspond with recorded frames, however, this is not a malfunction.

Taking Pictures with Aperture-priority AE



When aperture value is set, the shutter speed is automatically set from 1 second to 1/2000th according to the subject brightness. (However, the speed range is changed from 1/30th to 1/2000th when flash fires.) Altering the aperture value changes the depth of field of the picture.
Manipulating this value can change the sharpness of the background of your picture.

1 **Set the mode dial to [P/A/S]. (P25)**

2 **Press the [MENU] button.**

3 **Press ▲/▼ to select [AE MODE].**

4 **Press ◄/► to set to [A].**

5 **Press the [MENU] button.**

• The menu will disappear.

6 **Press ▲.**

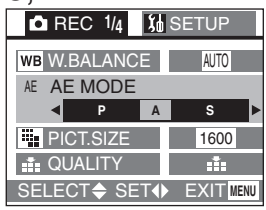
7 **Press ◄/► to set the aperture value.**

8 **Press the ▼/[REVIEW/SET] button.**

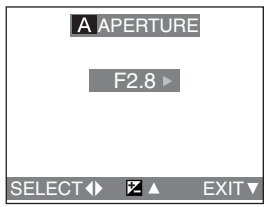
• The adjustment display will disappear.

9 **Take a picture.**

3,4

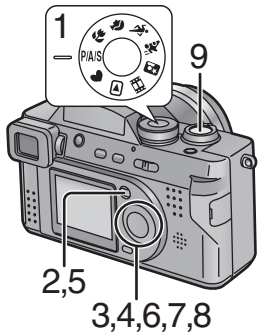


7



- The brightness of the LCD monitor/Viewfinder may differ from that of the actual images. Check it using review function or setting to playback mode.
- The recordable range is between 120 cm – ∞ (Tele) and 5 cm – ∞ (Wide).
- The available setting range of the aperture value is from F2.8 to F8.0.
- If the subject is too bright, set a larger aperture value, if too dim, set a smaller aperture value.
- It is not possible to select ISO sensitivity [AUTO].
- If the aperture value is not properly set, the color of the F and the shutter speed values on the LCD monitor/Viewfinder become red.

Taking Pictures with Shutter-priority AE



When the shutter speed is set, the aperture value is set automatically according to the subject brightness.
e.g.: when you want to record a moving subject, set the shutter speed higher to make the picture stable as if the subject stopped.

1 **Set the mode dial to [P/A/S]. (P25)**

2 **Press the [MENU] button.**

3 **Press ▲/▼ to select [AE MODE].**

4 **Press ► to set to [S].**

5 **Press the [MENU] button.**

• The menu will disappear.

6 **Press ▲.**

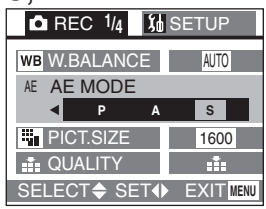
7 **Press ◄/► to set the shutter speed.**

8 **Press the ▼/[REVIEW/SET] button.**

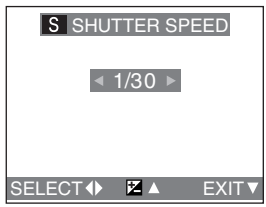
• The adjustment display will disappear.

9 **Take a picture.**

3,4

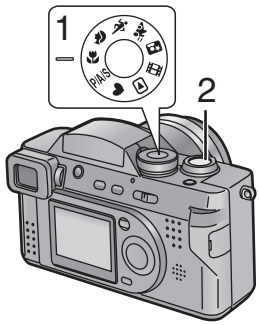


7



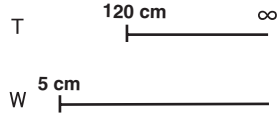
- The brightness of the LCD monitor/Viewfinder may differ from that of the actual images. Check it using review function or setting to playback mode.
- The recordable range is between 120 cm – ∞ (Tele) and 5 cm – ∞ (Wide).
- In shutter-priority AE mode [S], it is not possible to choose the settings listed below.
 – Slow sync./Red-eye reduction [] (P36) of the built-in flash
 – [AUTO] of ISO sensitivity (P61)
- The available setting range of the shutter speed is adjustable from 8 seconds to 1/2000th.
- When the shutter speed is slow, the use of a tripod is recommended.
- If the aperture value is not properly set, the color of the F and the shutter speed values on the LCD monitor/Viewfinder become red.
- If the shutter speed is faster than 1/500th, the aperture value is limited.

Taking Pictures with Macro Mode

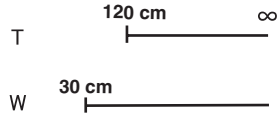


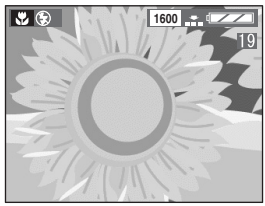
When you take pictures from a distance closer, set the camera in macro mode [🌷]. This allows you to get closer to the subject up to 5 cm (Wide).

• Macro mode [🌷]



• Normal



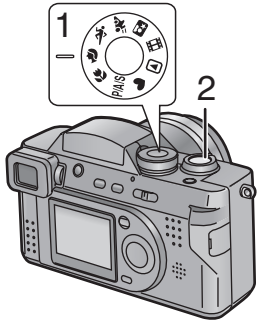


1 **Set the mode dial to Macro mode [🌷].**

2 **Take a picture.**

- Select the flash setting depending on the situation. (P36)
- The available flash range is about 30 cm – 2.1 m. (When setting to ISO100)
- When the shutter jiggle alert is displayed, we recommend to use the flash.
- When the camera lens is at a distance over the available range from the subject, focus may not be adjusted even if the focus indication appears.

Taking Pictures with the Portrait Mode



Portrait mode allows you to achieve the depth of focus effect easily when you take portrait photos. The subject looks sharp and outstanding against an unfocused background.
We recommend you to place the subject much closer and allow for proper distance between subject and background.
Please note that this mode is suitable for outdoor situations under sunlight.

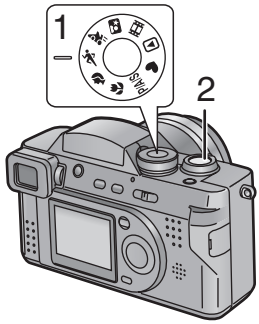
1 **Set the mode dial to Portrait mode [].**

2 **Take a picture.**



- [AUTO] setting in [W.BALANCE] works best when recording outdoors in the daytime. When using indoors, the color balance can change. You can change the white balance setting. (P58)

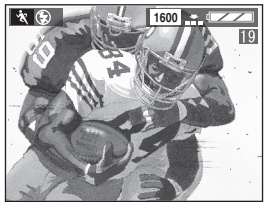
Taking Pictures with the Sports Mode



When you take photos of outdoor sports, this mode allows you to capture a still action photo easily. Please note that this mode is suitable to take photos of the subject from distances of more than 5 m and in daylight situations.

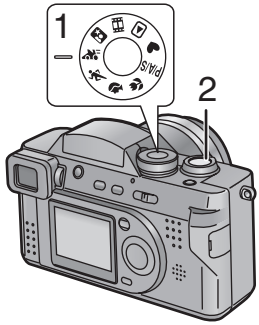
1 **Set the mode dial to Sports mode [].**

2 **Take a picture.**

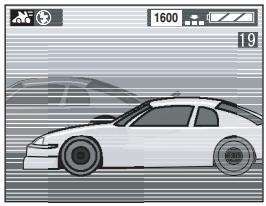


- [AUTO] setting in [W.BALANCE] works best when recording outdoors in the daytime. When using indoors, the color balance can change. You can change the white balance setting. (P58)
- Sport Mode sets the camera to use a high shutter speed. It works best when used in very brightly illuminated situations. To enhance this feature, try following the action with the camera.

Taking Pictures with the Panning Mode

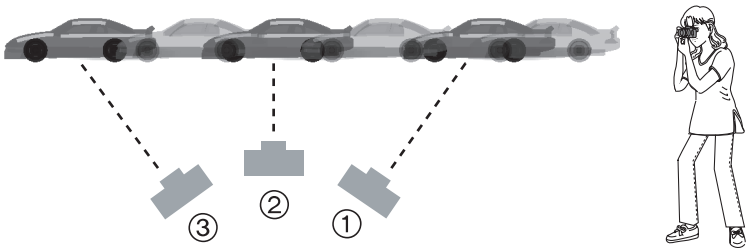


Panning is a technique of moving the camera tracking a subject in motion.
Using a slower shutter speed when tracking a subject, you can sharply photograph a subject in motion while blurring the background.
In the very bright summer daylight, if the shutter speed can not be set slower enough to blur the background, please use the ND filter (DMW-LND55, optional). (P63)
Please try to use the prefocus technique to reduce the time for focusing while shooting a fast moving subject. (P39)



1 **Set the mode dial to Panning mode [].**

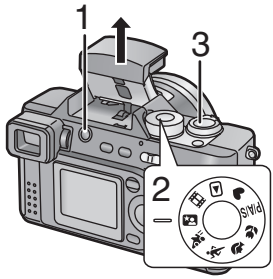
2 **Take a picture.**

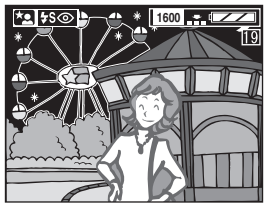


① Move the camera smoothly while tracking a subject in motion.
② Press the shutter button while moving the camera.
③ Keep moving the camera continuously.
It is difficult to adjust the focus when the subject has already come. Adjust the focus in advance to the point where the subject is likely to come.

- Set the AF trigger to [FOCUS] and you can fix the focus even if you press the shutter button halfway. (P39)
- [AUTO] setting in [W.BALANCE] works best when recording outdoors in the daytime. When using indoors, the color balance can change. You can change the white balance setting. (P58)
- The stabilizer function is effective only when taking a picture horizontally moving the camera from side to side.

Taking Pictures with the Night Portrait Mode





The Night Portrait mode combines the electronic flash with a “slow shutter” mode. This unique feature allows you to photograph close subjects against the natural night background. Since the shutter speed is slow, we highly recommend using a tripod to steady the camera.
The subject should be positioned within the available flash range. (When setting to ISO100, about 30 cm – 2.1 m)
We recommend you to set the zoom lever towards W.

1 **Press [OPEN] button to open the flash.**

2 **Set the mode dial to Night portrait mode [].**

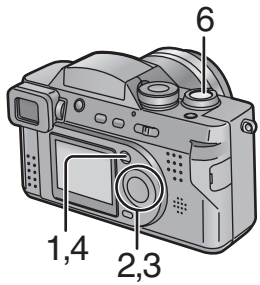
3 **Take a picture.**

■ When taking picture of only a landscape at night

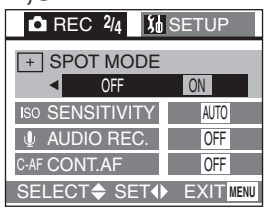
- You can obtain a good picture of a nightscape (including no other subjects) by closing the flash.
- The shutter speed is about 8 seconds.

- Be sure to close the flash when you do not use the flash.
- Flash setting is fixed to Slow sync./Red-eye reduction [].
- White balance is set to [AUTO] in the default position. You can change the setting. (P58)
- The shutter may be kept closed (Max: about 8 seconds) after taking a picture with slow shutter speed, but it is not a malfunction.
- When taking a picture in a dark place, the noise may appear. To avoid the noise, we recommend you to set the picture adjustment to [NATURAL]. (P57)

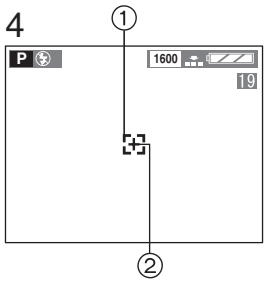
Taking Pictures with the Spot Mode



2,3



4



When this mode is selected, both the focus and the exposure will be adjusted to spot on a limited area. This is suitable when you take pictures in delicate light conditions and intend to take a picture of a specific area.

[Preparation]
- Set the mode dial except for [▶]/[♥]/[🎞]. (P25)

1 **Press the [MENU] button.**

2 **Press ▲/▼ to select [SPOT MODE].**

3 **Press ► to set to [ON].**

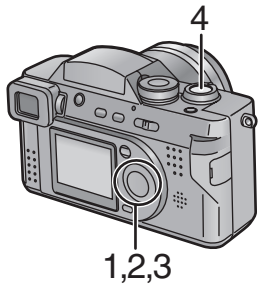
4 **Press the [MENU] button.**
- The menu will disappear.
- The spot AF area [] ① and spot metering target + ② appear.

5 **Center the subject in the spot AF area.**

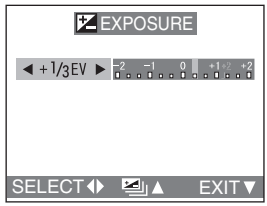
6 **Take a picture.**

- When the subject is dark, the focus may not be adjusted properly.
- Surroundings become dark or whitish depending on the subject to set to appropriate exposure in the spot AF area.
- If the subject is out of the spot AF area, use the AF/AE lock. (P55)

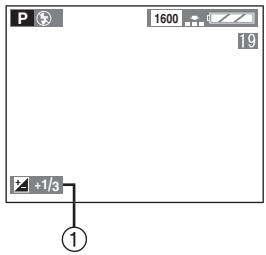
Compensating the Exposure



2



3



In some situations the illumination of the background and your subject may differ. Auto exposure systems may not always calculate the proper exposure correctly. This is a normal situation. This feature allows you to manually compensate the exposure.

[Preparation]
- Set the mode dial except for [▶]/[♥]/[🎞]. (P25)

1 **Press ▲ until [EXPOSURE] is selected.**

2 **Press ◄/► to compensate the exposure.**

- You can compensate from −2 EV to +2 EV with 1/3 EV step. (EV is an abbreviation of Exposure Value, and it is the amount of light given to the CCD by the aperture value and the shutter speed)

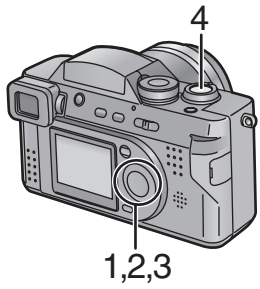
3 **Press the ▼/[REVIEW/SET] button.**

- The adjustment display will disappear.
- The exposure compensation indication ① will appear.

4 **Take a picture.**

- Depending on brightness of the subject, the range for which it is possible to compensate the exposure will be limited.

Taking Pictures with Auto (AE) Bracket



Pressing the shutter button once, the camera will automatically take 3 pictures changing exposure according to the set exposure compensation value.

[Preparation]
- Set the mode dial except for [▶]/[♥]/[🎞]. (P25)

1 **Press ▲ until [AUTO BRACKET] is selected.**

2 **Press ►, then press ◄/► to set the exposure compensation range.**

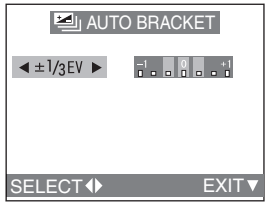
- OFF
- ±1/3EV
- ±2/3EV
- ±1EV

3 **Press the ▼/[REVIEW/SET] button.**

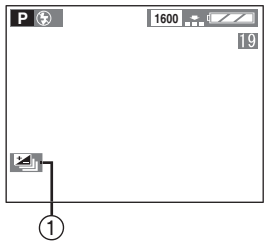
- The adjustment display will disappear.
- The auto bracket indication ① appears.

4 **Take a picture.**

2

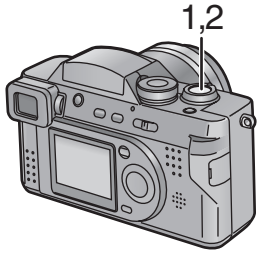


3



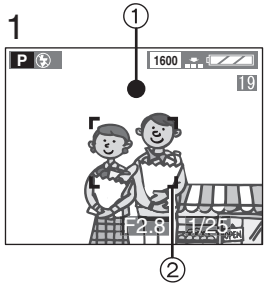
- Once you take a picture, auto bracket will be cancelled automatically.
- When flash fires, you can take only 1 picture. Auto bracket setting cannot be cancelled.
- The digital zoom magnification is limited to 2 times.
- When setting auto bracket, you cannot take a still picture with audio.
- When setting auto bracket and the burst mode simultaneously, auto bracket will be performed.
- Depending on the brightness of the subject, the range for which it is possible to compensate the exposure pictures using auto bracket will be limited.

Using the AF/AE Lock



If the subject is out of the AF area and you press the shutter button, the subject's focus is not adjusted. After locking focus and exposure (AF/AE lock), you can take a clear picture with adjusted focus.
AF: Auto focus
AE: Auto exposure

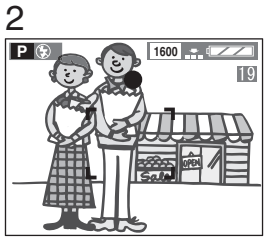
[Preparation]
• Set the mode dial except for [▶]. (P25)



1 **Aim the camera at the subject on which you want to adjust the focus to enter the AF area ② on the LCD monitor/Viewfinder and then keep pressing the shutter button halfway (AF/AE lock).**

• When the focus is adjusted, the focus indication ① [●] appears.

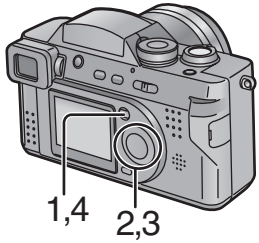
2 **Move the camera keeping the chosen composition and press the shutter button all the way.**



• Before pressing the shutter button, you can set the AF/AE lock again and again.

Using the Color Effect

This function makes it able to use color effect such as bluish, reddish, and black and white.



[Preparation]
- Set the mode dial except for [▶]/[♥]/[🎞]. (P25)

1 **Press the [MENU] button.**

2 **Press ▲/▼ to select [COL.EFFECT].**

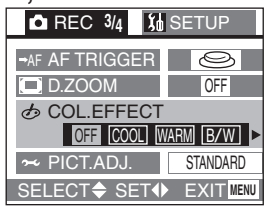
3 **Press ◀/▶ to select [OFF], [COOL], [WARM] or [B/W].**

- [COOL]: The picture becomes bluish.
- [WARM]: The picture becomes reddish.
- [B/W]: The picture becomes black and white.

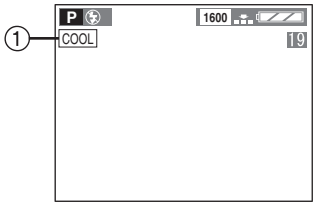
4 **Press the [MENU] button.**

- The menu will disappear.
- The indication [COOL/WARM/B/W] ① will appear.

2,3

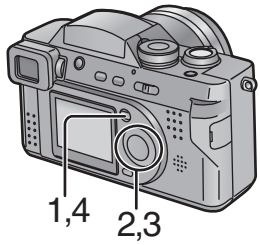


4

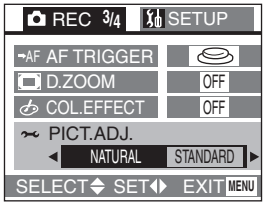


- When using the color effect mode, you cannot adjust the white balance.

Adjusting the Color Tone or the Contrast (Picture Adjustment)



2,3



This function enables you to adjust the color tone or the contrast.

[Preparation]
• Set the mode dial except for [▶]/[♥]/[🎞]. (P25)

1 **Press the [MENU] button.**

2 **Press ▲/▼ to select [PICT.ADJ.].**

3 **Press ◀/▶ to select [NATURAL], [STANDARD] or [VIVID].**

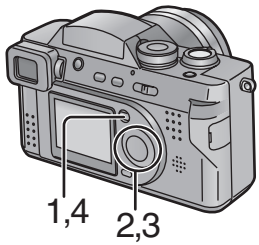
• [NATURAL]: The picture becomes soft.
• [VIVID]: The picture becomes sharp.

4 **Press the [MENU] button.**

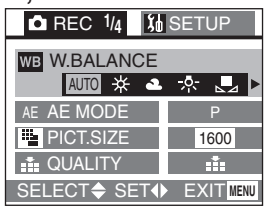
• The menu will disappear.

• When taking a picture in a dark place, the noise may appear. To avoid the noise, we recommend you to set the picture adjustment to [NATURAL].

Setting the White Balance



2,3



Auto White Balance is designed to automatically adjust the camera to produce natural flesh tones. In most situations it works fine. In some situations where several different types of lighting are present, enhanced performance can be achieved by setting the white balance manually.

[Preparation]
- Set the mode dial except for [▶]/[♥]/[🎞]. (P25)

1 **Press the [MENU] button.**

2 **Press ▲/▼ to select [W.BALANCE].**

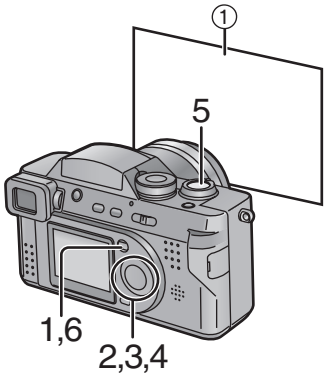
3 **Press ◄/► to select the mode.**
- [AUTO]: if the auto white balance is set
- [☀] (Daylight): for recording outdoors on a bright day
- [☁] (Cloudy): for recording under cloudy and shady sky
- [💡] (Halogen): for recording under halogen lighting
- [▭] (White set): for manual setting (Read the following page where the manual setting is explained in detail)

4 **Press the [MENU] button.**
- The menu will disappear.

- In simple mode [♥] or motion image mode [🎞], the white balance is fixed to [AUTO].
- The setting of the white balance is applied to the other recording modes.
- When taking a picture with the flash, the white balance will be automatically adjusted (only when in [AUTO], halogen mode [💡]), but the white balance may not be properly adjusted when the flash light is insufficient.

■ To set manually (White set)

Here the white set mode of white balance is explained.



[Preparation]

- Set the mode dial except for [▶]/[♥]/[🎞]. (P25)

1 **Press the [MENU] button.**

2 **Press ▲/▼ to select [W.BALANCE].**

3 **Press ► to set to white set [].**

Only when setting the white balance again

4 **Press ►.**

- The message “AIM THE CAMERA AT A WHITE SURFACE AND PRESS THE SHUTTER” is displayed.

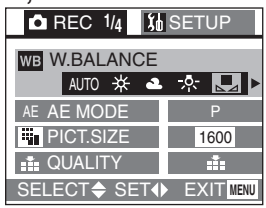
5 **Aim the camera at a white paper ① or similar objects so that it completely fills the frame to white on the screen and press the shutter button all the way.**

- White balance is set.

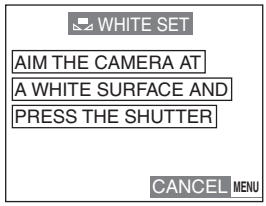
6 **Press the [MENU] button.**

- The menu will disappear.

2,3

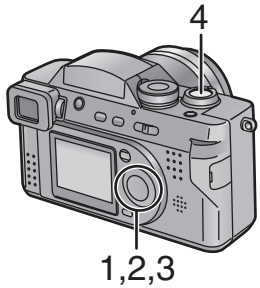


4

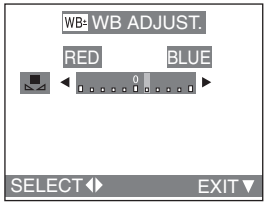


- When taking a picture with the flash after setting the white balance manually, the white balance may not be properly adjusted. We recommend to set the white balance to [AUTO] when using the flash.

Finely Adjusting the White Balance



2



If you cannot acquire the desirable hue with [W.BALANCE] because of different light sources, etc., adjust the fine white balance as follows.

[Preparation]
- Set the mode dial except for [▶]/[♥]/[🎞]. (P25)
- Set the white balance to [☀]/[☁]/[💡]/[🖼].

1 **Press ▲ until [WB± WB ADJUST.] is selected.**

2 **Adjust the white balance with ◄/►.**

► [BLUE]: Press when the hue is reddish.
◄ [RED]: Press when the hue is bluish.

3 **Press the ▼/[REVIEW/SET] button.**

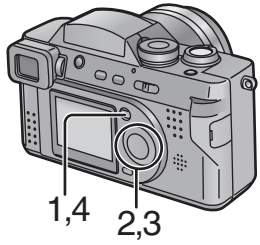
- The adjustment display will disappear.
- The color of the white balance icon is turned into red or blue.

4 **Take a picture.**

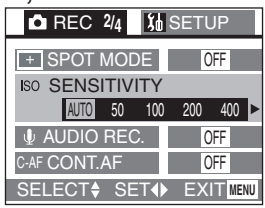
- When you set the white balance by the white set mode [🖼], the adjustment level is set to 0.
- You can set the value independently for each of the modes in [W.BALANCE].
- When using the color effect mode, you cannot adjust the white balance.

Setting ISO Sensitivity

ISO sensitivity is a value that corresponds to the sensitivity to light. The higher it is, the better the camera performs in dark places.



2,3



[Preparation]

- Set the mode dial except for [▶]/[♥]/[🎞]. (P25)

1 **Press the [MENU] button.**

2 **Press ▲/▼ to select [SENSITIVITY].**

3 **Press ◄/► to select the sensitivity.**

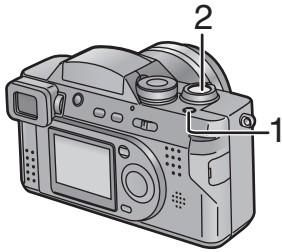
- [AUTO]: From ISO 50 to 400 (From ISO 100 to 200 when using the flash)
 The ISO sensitivity is automatically adjusted. If your picture is still too dark, please use the flash.
- [50]: ISO50
- [100]: ISO100
- [200]: ISO200
- [400]: ISO400

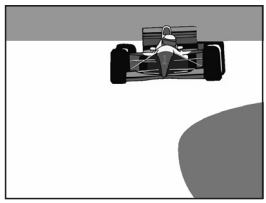
4 **Press the [MENU] button.**

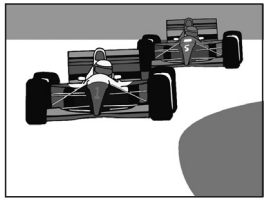
- The menu will disappear.

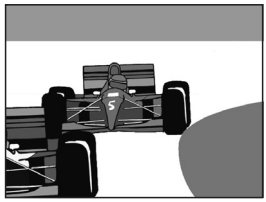
- In motion image mode [🎞] or simple mode [♥], ISO sensitivity is fixed to [AUTO].
- When you take a picture in high ISO sensitivity, the picture noise appears and the picture quality deteriorates.

Taking Pictures with Burst Mode









By continuously pressing the shutter button, it is possible to record in burst mode.

	Burst speed	Number of recordable pictures	
H	4 frames/ second	Max 4 frames	Max 7 frames
L	2 frames/ second	Max 4 frames	Max 7 frames

[Preparation]

- Set the mode dial except for [▶]/[🎞]. (P25)

1 **Press [].**

- Every time you press it, what is displayed changes as shown below.

H → L → OFF

H: High speed

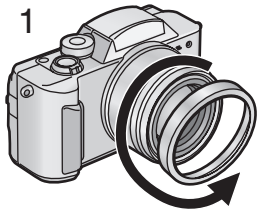
L: Low speed

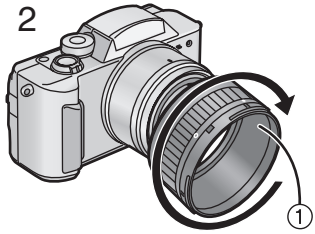
When these indicators are not displayed, burst mode is cancelled.

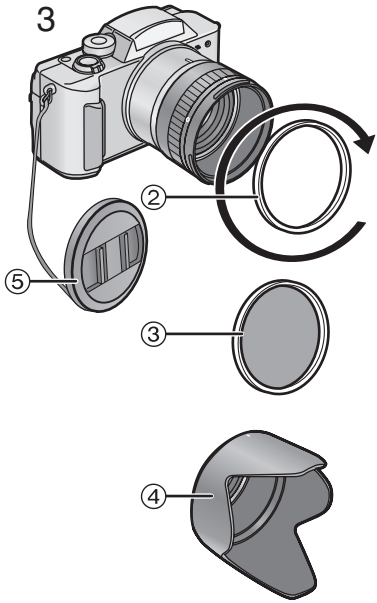
2 **Press the shutter button halfway to lock the focus, then press it fully to take pictures in sequence.**

- It is possible to record 4 frames in 1 second in burst mode, at a shutter speed higher than 1/60th, but the flash does not fire simultaneously.
- If the flash fires, it is possible to record only 1 frame.
- In simple mode [♥], the shutter speed is fixed to the low speed.
- You cannot take still pictures with audio in the burst mode.
- When setting auto bracket and the burst mode simultaneously, auto bracket will be performed.

Using the MC Protector/ND Filter







The MC protector (DMW-LMC55; optional) neither affects the colors nor the amount of light, so it can always be left attached to protect the Digital Camera's lens.
The ND filter (DMW-LND55; optional) reduces the amount of light to approximately 1/8th without affecting the color balance.

[Preparation]
- Check that the power switch is set to [OFF] and the lens barrel is stored.
- Close the flash. (P37)

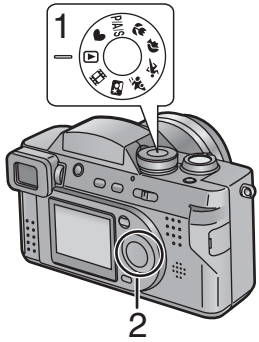
1 **Remove the lens ring.**

2 **Attach the lens hood adaptor ①.**

3 **Install the MC protector ② or the ND filter ③.**

- The lens hood ④ and lens cap ⑤ can be attached when installing the MC protector or ND filter.
- When taking pictures with the flash using the MC protector/ND filter, the vignetting effect may occur.
- Do not use the conversion lens.
 If it is used with the supplied lens hood adaptor, it may break.

Playing Back Still Pictures

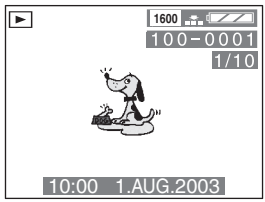


1 **Set the mode dial to playback [▶].**

- The last recorded picture is played back.

2 **Press ◄ to play back the previous picture.**
Press ► to play back the following picture.

- Every time you press ◄/►, the previous (next) picture is played back.
- The picture following the last one is the first picture.



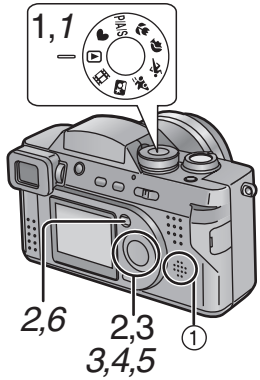
■ Fast forwarding/Fast rewinding

During playback, continue pressing ◄/►.
►: Fast forward
◄: Fast rewind

- The file number increases/decreases. When releasing ◄/►, the picture corresponding to the current file number is displayed.

- This camera is based on the DCF standards (Design rule for Camera File system) which were established by JEITA (Japan Electronics and Information Technology Industries Association).
- The file format that can be played back with this camera is JPEG. (There are also pictures that cannot be played back in JPEG format)
- When playing back still pictures that have been recorded with other equipment, the quality of pictures may be deteriorated and pictures may not be able to be played back.
- When changing the folder name or file name on PC, the pictures may not be able to be played back.
- When playing back a file out of standard, the folder/file number is indicated by [-] and the screen may become black.

Playing Back Still Pictures with Audio



1 **Set the mode dial to playback [▶].**

2 **Press ◄/► to select the file with audio icon [♪] ②.**

3 **Press the ▼/[REVIEW/SET] button to play back the audio.**

- You can hear audio from the speaker ①.

■ To adjust the sound volume Ⓐ

1 **Set the mode dial to playback [▶].**

2 **Press the [MENU] button.**

3 **Press ► to select the setup menu.**

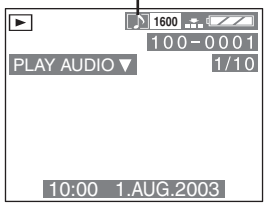
4 **Press ▲/▼ to select [VOLUME].**

5 **Press ◄/► to adjust the sound volume.**

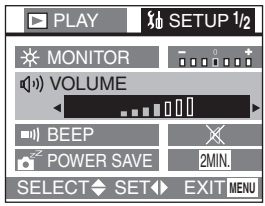
6 **Press the [MENU] button.**

- The menu will disappear.

2 ②

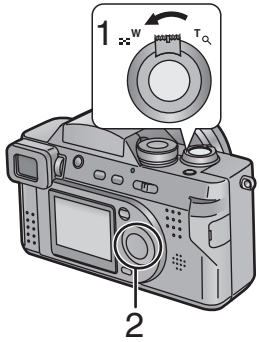


Ⓐ



9 Images Multi Playback

It is possible to display 9 images at once.



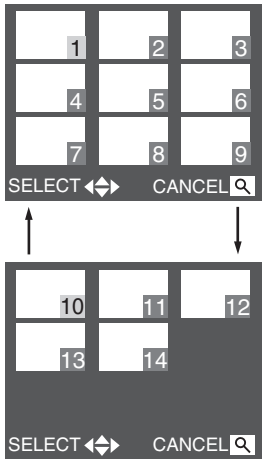
[Preparation]
• Set the mode dial to playback [▶]. (P25)

1 **During playback, rotate the zoom lever towards [▪▪▪▪].**

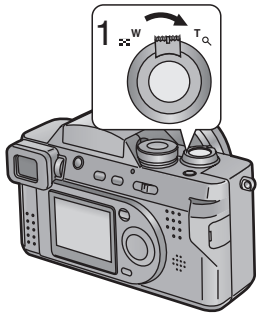
• Multi playback (9 frames) starts.

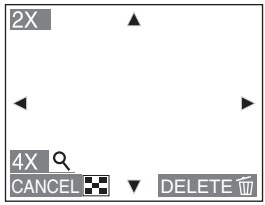
2 **Press ▲/▼/◀/▶ to select images.**

• To return to the normal indication, rotate the zoom lever towards [🔍]. The image with the file number colored in yellow is displayed.



Using the Playback Zoom





During playback it is possible to enlarge pictures. (2 times/4 times/8 times/16 times)

[Preparation]
- Set the mode dial to playback [▶]. (P25)

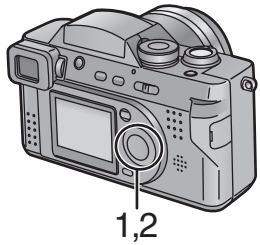
1 **During playback, rotate the zoom lever towards [🔍].**
- The more the zoom lever rotates towards [🔍], the more the zoom magnification ratio increases.
- The more the zoom lever rotates towards [▪], the more the zoom magnification ratio decreases.
- Use ▲/▼/◄/► to change the area to be enlarged.

■ To delete a picture during the playback zoom

Press the [🗑] button.
When this message is displayed “DELETE THIS PICTURE?”, press ◄ to select [YES], and press the ▼/[REVIEW/SET] button. (P69)

- The more the zoom magnification increases, the more the picture quality deteriorates.
- The playback zoom may not operate if pictures have been recorded with other equipment.

Playing Back Motion Images

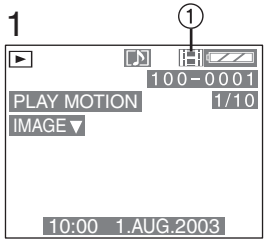


[Preparation]
- Set the mode dial to playback [▶]. (P25)

1 **Press ◄/► to select the file with the motion image icon [🎞] ①.**

2 **Press the ▼/[REVIEW/SET] button to play back the motion image.**
- By pressing ▼, motion image playback will stop.

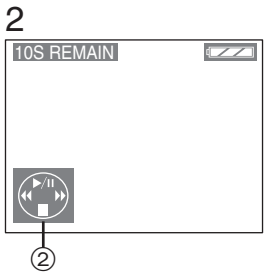
- The icon ② is corresponding to the ▲/▼/◄/► button.



■ Fast forwarding/Fast rewinding

During motion image playback, continue pressing ◄/►.
►: Fast forward
◄: Fast rewind

- When releasing the button, it turns to normal motion image playback.



■ To pause

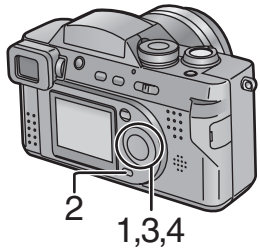
Press ▲ during motion image playback.

- Press ▲ again to cancel pause.

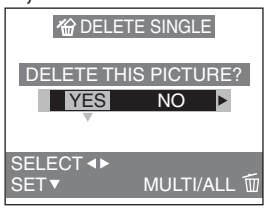
- To adjust the sound volume (P65)

- The playback zoom cannot be used during playing back motion images.
- When playing back motion images that have been recorded with other equipment, the quality of images may be deteriorated and images may not be able to be played back.
- The file format that can be played back with this camera is QuickTime Motion JPEG.
- It could happen that the Motion JPEG file recorded by PC or other equipments cannot be played back with this camera.
- When using a high capacity Memory Card, it is possible that fast rewinding may be slower.

Deleting Images



2,3



Images recorded on the card can be deleted. Once deleted, images cannot be recovered.

[Preparation]
- Set the mode dial to playback [▶]. (P25)
- When an image is protected, it cannot be deleted. Cancel the protect setting. (P74)

[Delete single image]

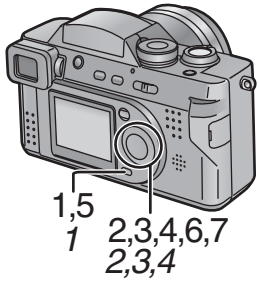
1 **Press ◄/► to select the image to be deleted.**

2 **Press [🗑].**

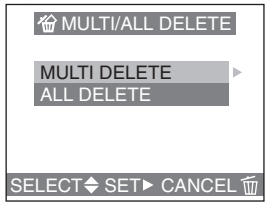
3 **Press ◄ to select [YES].**

4 **Press the ▼/[REVIEW/SET] button.**

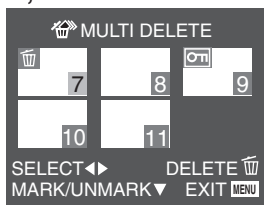
- The selected image is deleted.



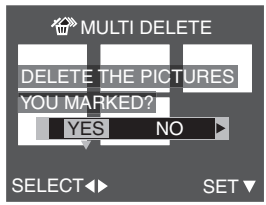
2,2



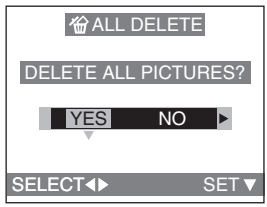
3,4



6



3



[Delete multi images]

It is possible to delete up to 50 images all at once.

1 **Press [] 2 times.**

2 **Select [MULTI DELETE] and then press ►.**

3 **Press ◄/► to select the images to be deleted.**

4 **Press the ▼/[REVIEW/SET] button.**

- The selected images are displayed with []. Pressing the ▼/[REVIEW/SET] button again, the setting is cancelled.
- The indication [] blinks red if the selected image is protected. Cancel the protect setting. (P74)

5 **Press [].**

6 **When this message is displayed "DELETE THE PICTURES YOU MARKED?", press ◄ to select [YES].**

7 **Press the ▼/[REVIEW/SET] button.**

- The selected multi images are deleted all at once.

[Delete all images]

Once deleted, images cannot be recovered.

1 **Press [] 2 times.**

2 **Press ▼ to select [ALL DELETE] and then press ►.**

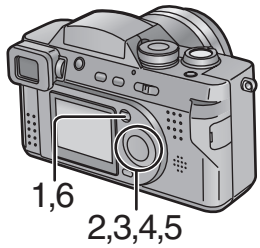
3 **When this message is displayed "DELETE ALL PICTURES?", press ◄ to select [YES].**

4 **Press the ▼/[REVIEW/SET] button.**

- Images that are protected (P74) or out of DCF standards (P64) are not deleted.

- Do not turn the power switch off or remove the card during deleting.
- When the remaining power is low, use the AC adaptor.

Writing the Print Information in the Card (DPOF Setting)



It is possible to write print information (DPOF data) on the card with the images that you want to print and the number of sheets.

DPOF is an abbreviation of Digital Print Order Format. With the DPOF corresponding system, you can add print information to the images on the Memory Card.

[Preparation]
• Set the mode dial to playback [▶]. (P25)

[Single copy setting]

1 **Press the [MENU] button.**

2 **Press ▲/▼ to select [DPOF PRINT] and then press ►.**

3 **Select [SINGLE] and then press ►.**

4 **Press ◄/► to select 1 image.**

5 **Press ▲/▼ to select the number of sheets.**

- The number of sheets can be set from 1 to 999.

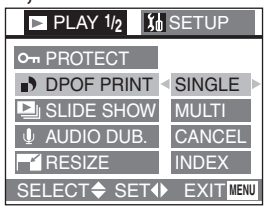
6 **Press the [MENU] button 2 times.**

- The menu will disappear.

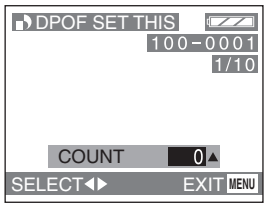
[To cancel]

Set the number of sheets to 0 in step 5 of the [Single copy setting].

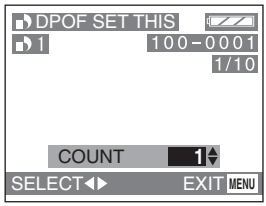
2,3



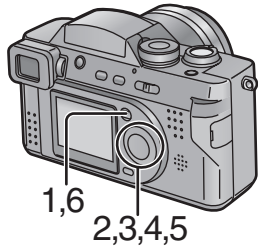
4



5



[Multi copy setting]



1 **Press the [MENU] button.**

2 **Press ▲/▼ to select [DPOF PRINT] and then press ►.**

3 **Press ▲/▼ to select [MULTI] and then press ►.**

4 **Press ◄/► to select the image.**

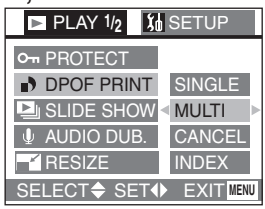
5 **Press ▲/▼ to select the number of sheets to be printed.**

- The number of sheets can be set from 1 to 999.
- Copy setting ① is displayed (white).

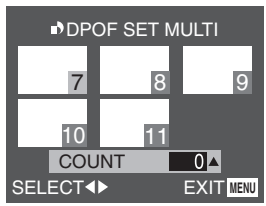
6 **Repeat steps 4 and 5, and at the end press the [MENU] button 2 times.**

- The DPOF setting of multi images is set at once.
- The menu will disappear.

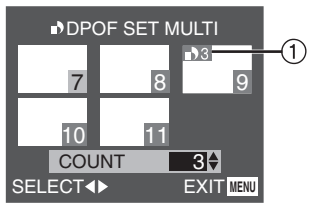
2,3



4



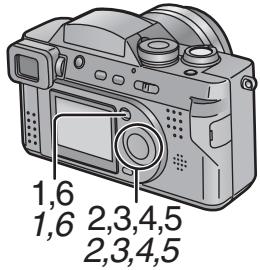
5



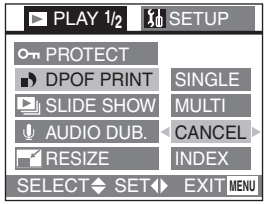
[To cancel]

Set the number of sheets to 0 in step 5 of the [Multi copy setting].

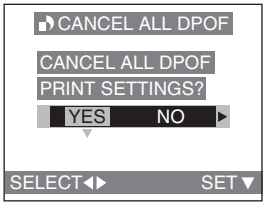
- If the file is not based on the DCF standard, the DPOF setting cannot be set.
 DCF is abbreviation of [Design rule for Camera File system], stipulated by JEITA [Japan Electronics and Information Technology Industries Association].
- When using the DPOF feature, this camera will overwrite any previous DPOF settings made by other products.
- When this message is displayed “MEMORY CARD FULL”, delete unnecessary files, and then set the DPOF print setting again.



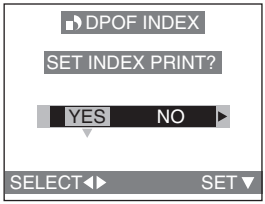
2,3 2,3

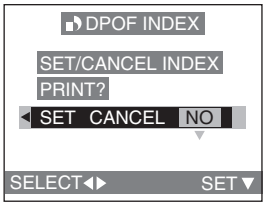


4



4





[To cancel all settings]

1 **Press the [MENU] button.**

2 **Press ▲/▼ to select [DPOF PRINT] and then press ►.**

3 **Press ▲/▼ to select [CANCEL] and then press ►.**

4 **When this message is displayed "CANCEL ALL DPOF PRINT SETTINGS?", press ◄ to select [YES].**

5 **Press the ▼/[REVIEW/SET] button.**

- All DPOF settings are cancelled.

6 **Press the [MENU] button.**

- The menu will disappear.

[Index setting/to cancel]

1 **Press the [MENU] button.**

2 **Press ▲/▼ to select [DPOF PRINT] and then press ►.**

3 **Press ▼ to select [INDEX] and then press ►.**

4 **When this message is displayed "SET INDEX PRINT?", press ◄ to select [YES].**

- When the index is already set, the message "SET/CANCEL INDEX PRINT?" is displayed. Press ◄/► to select [SET], [CANCEL] or [NO].

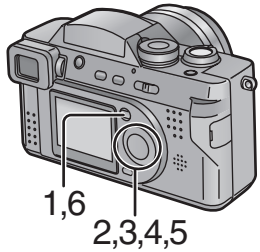
5 **Press the ▼/[REVIEW/SET] button.**

- All images are set/cancelled.

6 **Press the [MENU] button.**

- The menu will disappear.

Protecting Images on the Card



It is possible to protect the important images recorded on the card from accidental erasure.

[Preparation]
• Set the mode dial to playback [▶]. (P25)

[Single setting/to cancel]

1 **Press the [MENU] button.**

2 **Press ▲/▼ to select [PROTECT] and then press ▶.**

3 **Select [SINGLE] and then press ▶.**

4 **Press ◀/▶ to select 1 image.**

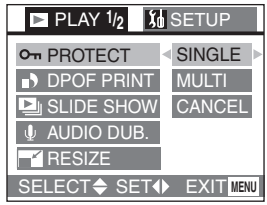
5 **Press the ▼/[REVIEW/SET] button.**

- The protect icon ① appears.
- By pressing the ▼/[REVIEW/SET] button again, the protection is cancelled and the icon will disappear.

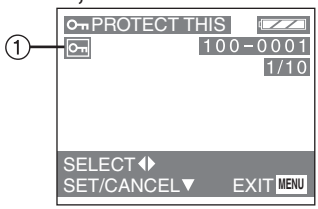
6 **Press the [MENU] button 2 times.**

- The menu will disappear.

2,3



4,5

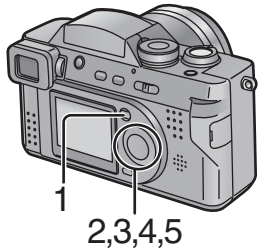


[Multi setting/To cancel all settings]

1 **The method is the same as in "Writing the Print Information in the Card (DPOF Setting)". (P71~P73)**

- Formatting the card will erase all the data on the card, even if you protect the images in this procedure.
- When trying to delete a protected file, these messages are displayed "THIS PICTURE IS PROTECTED" or "PROTECTED PICTURES REMAIN UNDELETED". If you want to delete this file, cancel the protect setting first.
- The protect setting may not be effective in other products.
- Sliding the SD Memory Card Write-Protect switch to [LOCK] prevents the picture from deletion even if the protection is not set.
- The audio dubbing cannot be used with protected images.
- **While this feature will protect the photos from accidental erasure, formatting the card will permanently delete all data.**

Playing Back with Slide Show (Automatic Playback)



All pictures selected in the card can be played back one-by-one automatically.

[Preparation]
• Set the mode dial to playback [▶]. (P25)

1 **Press the [MENU] button.**

2 **Press ▲/▼ to select [SLIDE SHOW] and then press ►.**

3 **Press ▲/▼ to select [ALL]/[DPOF] and then press ►.**

- [ALL]:
 for playing back all pictures
- [DPOF]:
 for playing back the DPOF set pictures

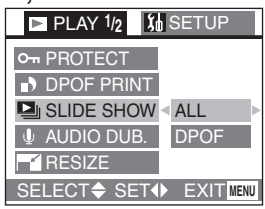
4 **Press ▲/▼/◄/► for setting below.**

- [DURATION]:
 it can be set among 1, 2, 3 and 5 seconds.
- [AUDIO]:
 it can be set to [ON] or [OFF]. By setting it to [ON], it is possible to play back the still pictures with audio in Slide Show.
- [DPOF SET] (Only when setting to [DPOF]):
 You can select the pictures you want to set to the Slide Show.
- [CANCEL ALL] (Only when setting to [DPOF]):
 You can cancel the Slide Show setting.

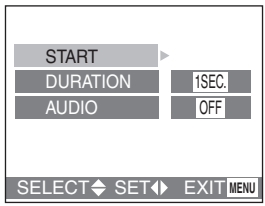
5 **Select [START] and then press ►.**

- The Slide Show starts.
- By pressing the [MENU] button, it stops.

2,3



4

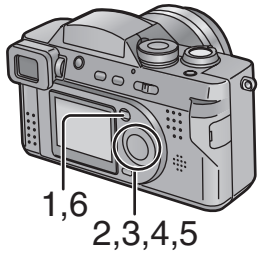


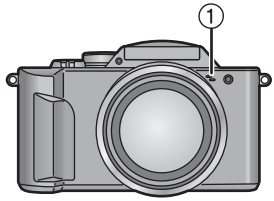
5



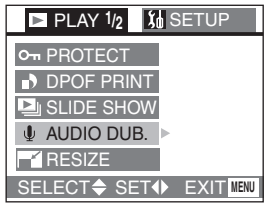
- In motion image playback, Slide Show is not available.
- The DPOF setting of Slide Show will not be applied to the DPOF printing.
- When setting [AUDIO] to [ON], the still picture with audio is played back for 5 seconds (audio recording)/Max 10 seconds (audio dubbing).
- When editing with the supplied software [SD Viewer for DSC] recorded on the CD-ROM, you can play back in SD Slide Show with this camera. (P98)
- Images that are set DPOF with the supplied software [SD Viewer for DSC] recorded on the CD-ROM cannot be played back in DPOF Slide Show with this camera. Set DPOF Slide Show on this camera.
- When using the DPOF feature, this camera will overwrite any previous DPOF settings made by other products.

Adding Audio to Recorded Pictures (Audio Dubbing)

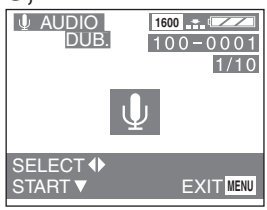




2



3,4



It is possible to add a 10-second narration to a recorded picture.

[Preparation]
• Set the mode dial to playback [▶]. (P25)

1 **Press the [MENU] button.**

2 **Press ▲/▼ to select [AUDIO DUB.] and then press ►.**

3 **Press ◄/► to select the picture.**

4 **Press the ▼/[REVIEW/SET] button to start audio recording. (① Microphone)**

- When audio has already been recorded, after the audio dubbing the original audio is overwritten.
- When audio has already been recorded, this message is displayed "OVERWRITE AUDIO DATA?". Then press ◄ to select [YES], and press the ▼/[REVIEW/SET] button to start audio recording.

5 **Press the ▼/[REVIEW/SET] button to stop audio recording.**

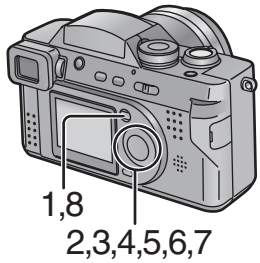
- Even if you do not press the ▼/[REVIEW/SET] button, after about 10 seconds the audio recording stops automatically.

6 **Press the [MENU] button 2 times.**

- The menu will disappear.

- Adding audio will use additional memory. Using this feature will result in fewer images being able to be saved.
- The audio dubbing cannot be used with motion images.
- The audio dubbing cannot be used with protected images.

Resizing Recorded Pictures



It is possible to reduce the recorded picture size. This function is useful if you want to reduce the volume of the picture for attaching to an e-mail or uploading on web-site.

[Preparation]
• Set the mode dial to playback [▶]. (P25)

1 **Press the [MENU] button.**

2 **Press ▲/▼ to select [RESIZE] and then press ►.**

3 **Press ◄/► to select the picture, and then press ▼.**

4 **Press ◄/► to select the size.**

• [1280]: 1280×960
• [640]: 640×480

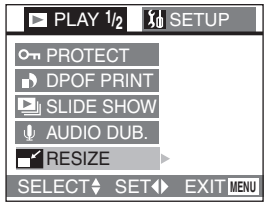
5 **Press the ▼/[REVIEW/SET] button to set the size.**

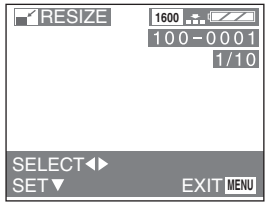
6 **When this message is displayed "DELETE ORIGINAL PICTURE?", press ◄/► to select [YES] or [NO].**

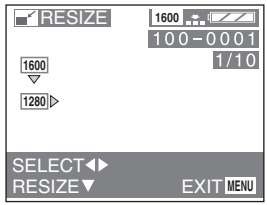
7 **Press the ▼/[REVIEW/SET] button.**

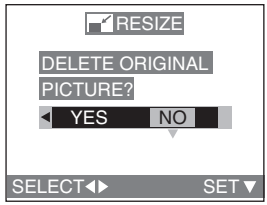
8 **Press the [MENU] button 2 times.**

• The menu will disappear.

2


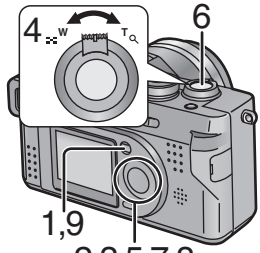
3


4


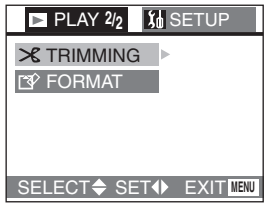
6


• It is not possible to resize pictures in a size lower than/equal to [640×480] or with an aspect ratio that is not 4:3.
• It may not be possible to resize the pictures recorded with other equipments.
• It is not possible to resize the motion image/ still picture with audio.

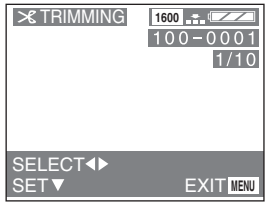
Trimming Recorded Pictures



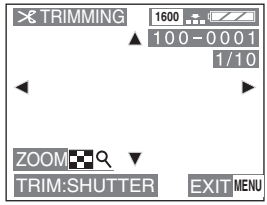
2



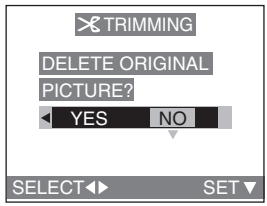
3



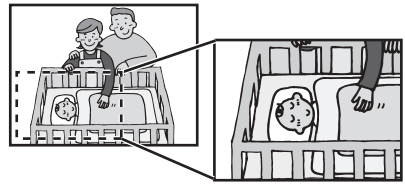
4,5,6



7



It is possible to cut off the unnecessary parts of the picture (trimming), and enlarge the remainder parts of the picture.



[Preparation]

- Set the mode dial to playback [▶]. (P25)

1 **Press the [MENU] button.**

2 **Press ▲/▼ to select [TRIMMING] and then press ►.**

3 **Press ◄/► to select the picture, and then press ▼.**

4 **Rotate the zoom lever towards [🔍] to make subjects closer, and towards [▪] to make subjects wider.**

5 **Press ▲/▼/◄/► to shift pictures.**

6 **Press the shutter button to set.**

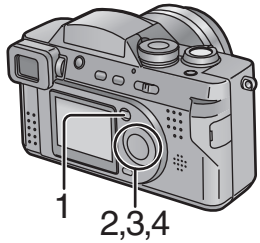
7 **When this message is displayed "DELETE ORIGINAL PICTURE?", press ◄/► to select [YES] or [NO].**

8 **Press the ▼/[REVIEW/SET] button.**

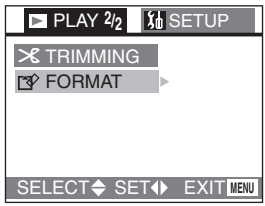
9 **Press the [MENU] button 2 times.**
- The menu will disappear.

- Trimming images will use additional memory if the original image is saved.
- It is not possible to resize pictures in a size lower than [640×480] or with an aspect ratio that is not 4:3.
- You cannot operate trimming on pictures recorded with other equipment.
- Trimming is not possible for the motion image/still picture with audio.
- The picture size of the trimmed pictures may become smaller than that of the original one depending on the cut size.
- The picture quality of the trimmed picture becomes inferior.

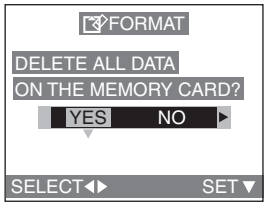
Formatting the Card



2



3



Usually, it is not necessary to format the card (initializing). Format the card when this message is displayed “MEMORY CARD ERROR”.

[Preparation]
• Set the mode dial to playback [▶]. (P25)

1 **Press the [MENU] button.**

2 **Press ▲/▼ to select [FORMAT] and then press ►.**

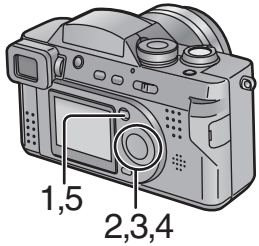
3 **When this message is displayed “DELETE ALL DATA ON THE MEMORY CARD?”, press ◄ to select [YES].**

4 **Press the ▼/[REVIEW/SET] button.**

- The card is formatted.
- After formatting, recorded images and any other data cannot be recovered.

- When the remaining power is low, use the AC adaptor.
- When the card is formatted by PC or other equipment, format the card on the camera again.
- If the card cannot be formatted, consult your dealer.

Adjusting the LCD Monitor/Viewfinder Brightness



You can adjust the brightness of the LCD monitor or Viewfinder.

[Preparation]
- Set the mode dial except for [♥]. (P25)
- Press the [DISPLAY] button to select the display of LCD monitor ① or Viewfinder ②. (P23)

1 **Press the [MENU] button.**

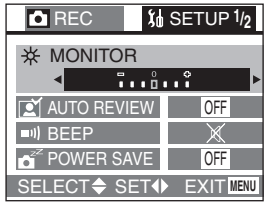
2 **Press ► to open the setup menu.**

3 **Press ▲/▼ to select [MONITOR]/ [FINDER].**

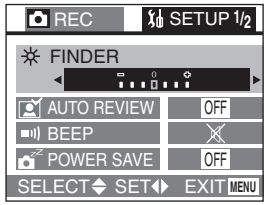
4 **Press ◄/► to adjust the brightness.**

5 **Press the [MENU] button.**
- The menu will disappear.

3,4 ①

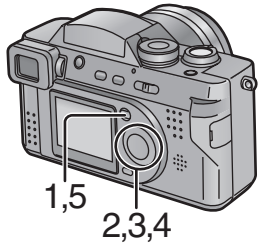


②

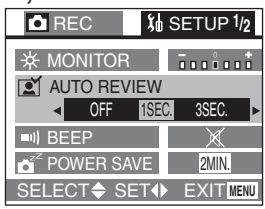


- Adjusting the LCD Monitor/Viewfinder will not lighten or darken the actual photograph.
- Adjusting the LCD Monitor/Viewfinder to brighten the image may incorrectly display the scene making it appear brighter than the actual photo will be. In most cases the default setting will produce the best performance and closest reproduction of the actual scene.

Using the Auto Review



3,4



Recording with the auto review set to [1SEC.]/[3SEC.], the recorded picture is automatically displayed on the LCD monitor/Viewfinder for about 1or 3 seconds.

[Preparation]
- Set the mode dial to except for [▶]/[♥]. (P25)

1 **Press the [MENU] button.**

2 **Press ► to open the setup menu.**

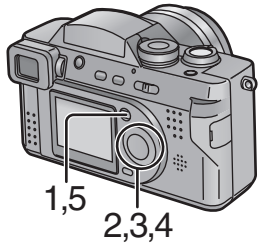
3 **Press ▲/▼ to select [AUTO REVIEW].**

4 **Press ◄/► to select [1SEC.] or [3SEC.].**

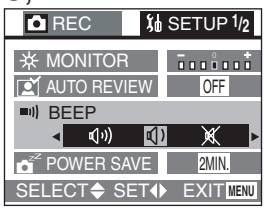
5 **Press the [MENU] button.**
- The menu will disappear.

- Press the shutter button halfway to cancel the review.
- Even when setting the auto review to [1SEC.]/[3SEC.], it is not available in motion image mode [🎞].
- When recording in burst mode, auto bracket, still picture with audio modes, the recorded picture is automatically displayed.
- In simple mode [♥], the auto review setting becomes [ON] (2 seconds) or [OFF].

Setting up the Operational Sound



3,4



It is possible to set the sound volume when the menu operations are done.

1 **Press the [MENU] button.**

2 **Press ► to open the setup menu.**

- In simple mode, skip this step.

3 **Press ▲/▼ to select [BEEP].**

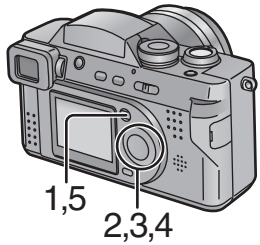
4 **Press ◄/► to adjust the operational sound volume.**

5 **Press the [MENU] button.**

- The menu will disappear.

- In simple mode [♥], the setting becomes [ON] or [OFF].

Setting up the Power Save Mode



In this mode, if the camera is not operated for a certain amount of time, it is automatically turned off.

1 **Press the [MENU] button.**

2 **Press ► to open the setup menu.**

3 **Press ▲/▼ to select [POWER SAVE].**

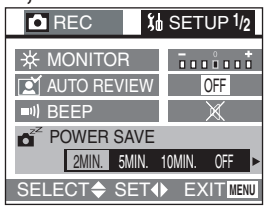
4 **Press ◄/► to choose the setting time.**

- [2MIN.]
- [5MIN.]
- [10MIN.]
- [OFF]: the power is not turned off automatically.

5 **Press the [MENU] button.**

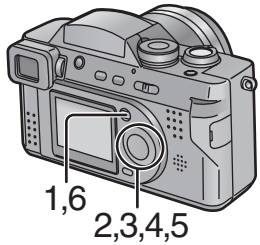
- The menu will disappear.

3,4



- If you want to cancel the power save mode, turn the power switch to [ON] again after turning it to [OFF], or press the shutter button.
- When using the AC adaptor/connecting to a PC/recording the motion image/ playing back the motion image/during Slide Show, the power save mode is not available.
- In simple mode [♥], the power save is fixed to [2MIN.].

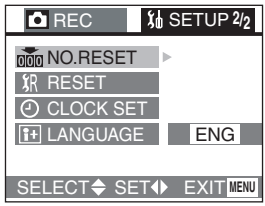
Resetting the File Number



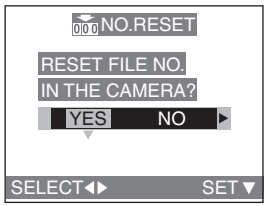
As the file numbers are recorded sequentially by the camera, when you use two or more cards, it may happen that the file numbers on your cards do not start from 0001.
Use this function when you insert a new card or perform the new recording on the recorded card and you want to start recording from the file number 0001.

[Preparation]
• Set the mode dial except for [▶]/[♥]. (P25)

3



4



1 **Press the [MENU] button.**

2 **Press ► to open the setup menu.**

3 **Press ▲/▼ to select [NO.RESET] and then press ►.**

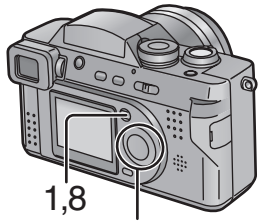
4 **When this message is displayed "RESET FILE NO. IN THE CAMERA?", press ◄ to select [YES].**

5 **Press the ▼/[REVIEW/SET] button.**

6 **Press the [MENU] button.**

• The menu will disappear.

Initializing the settings



The settings are initialized using this function.

[Preparation]
- Set the mode dial except for [▶]/[♥]. (P25)

1 **Press the [MENU] button.**

2 **Press ► to open the setup menu.**

3 **Press ▲/▼ to select [RESET] and then press ►.**

4 **When this message is displayed "RESET REC. SETTINGS?", press ◄ to select [YES].**

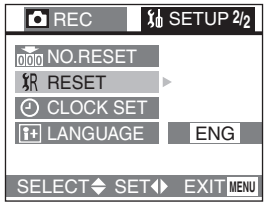
5 **Press the ▼/[REVIEW/SET] button.**
- The message "REC. SETTING RESET COMPLETED" is displayed for about 2 seconds.

6 **When this message is displayed "RESET SETUP PARAMETERS?", press ◄ to select [YES].**

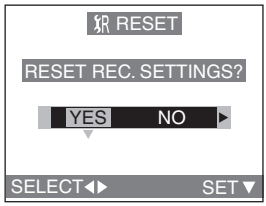
7 **Press the ▼/[REVIEW/SET] button.**
- The clock setting is not reset.

8 **Press the [MENU] button.**
- The menu will disappear.

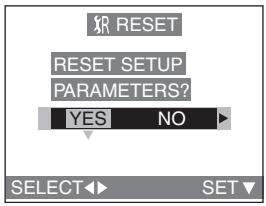
3



4

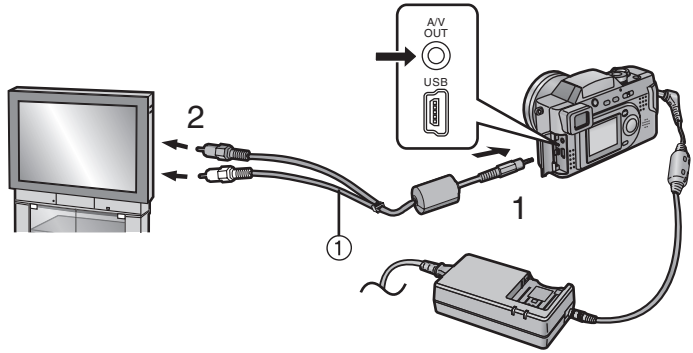


6



Playing Back Images with a TV Monitor

By connecting the camera to a television via the supplied A/V cable ①, it is possible to view and play back the recorded images.



[Preparation]
• Turn the camera and the television off.

1 **Connect the A/V cable ① to the A/V OUT socket of the camera.**

2 **Connect the A/V cable to the video in and the audio in sockets of the TV.**
 • Yellow: to the video in socket
 • White: to the audio in socket

3 **Turn the television on and select external input.**

4 **Turn the camera on and then set the mode dial to playback [▶].**
 • The image is displayed on the television.

■ Viewing images in other countries

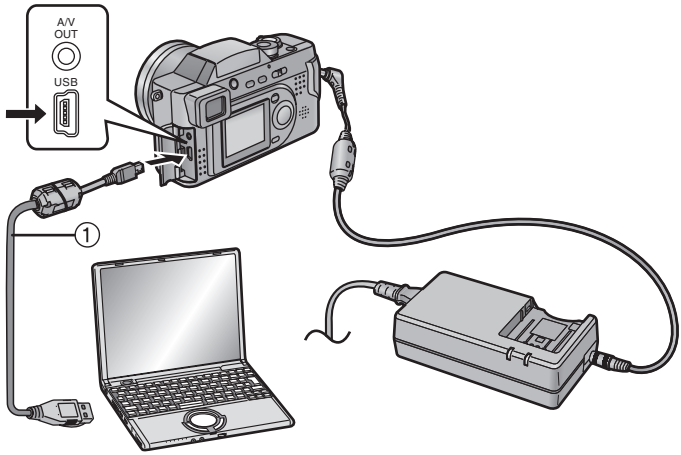
When setting [VIDEO OUT] on the menu, you can view images on the TV in other countries (regions) which use the NTSC or PAL system.

• When connecting to a TV, we recommend you to use the AC adaptor as the power source. (P14)
• Use the supplied A/V cable only.
• Only when the mode dial is set to playback [▶], the image is displayed on the TV.
• Read the TV operating instructions too.

Connecting to a PC

[Preparation]

- If your PC uses Microsoft Windows® 98 or 98SE, a USB driver must be installed from the CD that is included. If you are using a newer Microsoft operating system such as Windows Me, Windows 2000, or Windows XP (Home Edition/ Professional), no USB driver needs to be installed. Your PC should recognize the camera automatically.



1 **Insert the Memory Card into the camera, and turn the power switch to [ON].**

2 **Connect the camera to a PC via the supplied USB connection cable ①.**



[Windows]
The drive is shown on the [My Computer] folder.

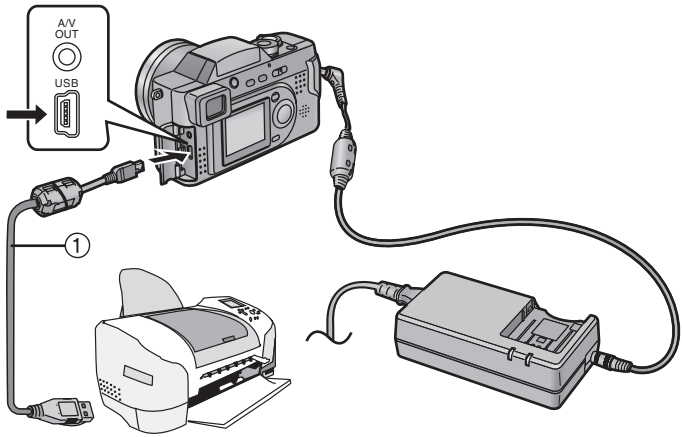
- If it is the first time you are connecting the camera to a PC, the required driver is installed automatically in order to let the camera be recognized by the Windows Plug and Play, then it is shown on the [My Computer] folder.

[Macintosh]
The drive is shown on the screen.

- When connecting to a PC, we recommend you to use the AC adaptor as the power source. (P14)
- If the remaining battery power becomes low during communication, the power indicator blinks and the alarm beeps. In this case, stop the communication. Then turn the power switch to [OFF] and charge the battery.
- When connecting to a PC, pictures and sounds are not output from the A/V OUT socket.
- For further information (software installation), read the supplied operating instructions for PC connection.

USB DIRECT-PRINT

By connecting the camera to a printer corresponding to USB DIRECT-PRINT via the supplied USB connection cable, it is possible to print directly.
(Please ask the manufacturer of the printer about the corresponding models)



1 **Insert the Memory Card into the camera, and turn the power switch to [ON].**

2 **Turn on a printer.**

3 **Connect the camera to a printer via the supplied USB connection cable ①.**

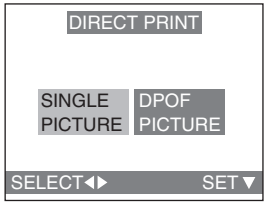
- When connecting to a printer, we recommend you to use the AC adaptor as the power source. (P14)
- Read the printer operating instructions too.
- Disconnect the USB connection cable and DC cable after printing.

USB DIRECT-PRINT (Single Picture)

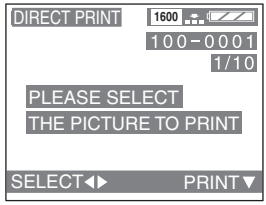
[Preparation]

• Connect the camera to a printer. (P89)

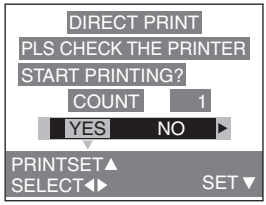
1



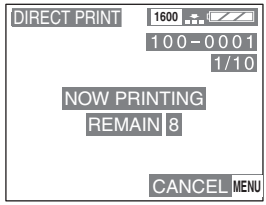
2



3,4



5



1 **Only when DPOF is already set, press ◄ to select [SINGLE PICTURE], and then press the ▼/[REVIEW/SET] button.**

- The message “PLEASE SELECT THE PICTURE TO PRINT” is displayed for 2 seconds.
- When DPOF is not set, this screen is skipped.

2 **Press ◄/► to select the picture to be printed, and then press the ▼/[REVIEW/SET] button.**

3 **Press ▲, and press ◄/► to set the number of sheets, and then press the ▼/[REVIEW/SET] button.**

- The message “PLS CHECK THE PRINTER START PRINTING?” is displayed.

4 **Press ◄ to select [YES].**

5 **Press the ▼/[REVIEW/SET] button.**

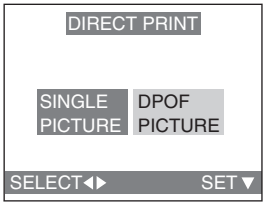
- Printing starts.

• Press the [MENU] button, and you can stop printing.

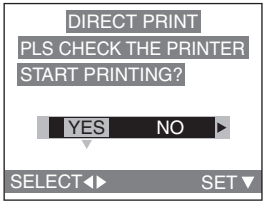
USB DIRECT-PRINT (DPOF Picture)

[Preparation]
- Connect the camera to a printer. (P89)
- Write the print information in the card (DPOF setting). (P71)

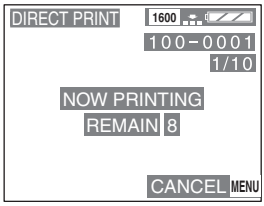
1



2,3



4



1 **Press ► to select [DPOF PICTURE].**
- Press the [MENU] button, and you can change the DPOF setting. (P71)

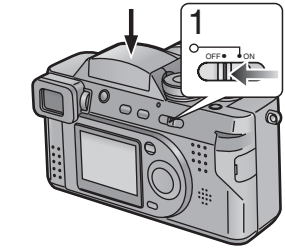
2 **Press the ▼/[REVIEW/SET] button.**
- The message “PLS CHECK THE PRINTER START PRINTING?” is displayed.

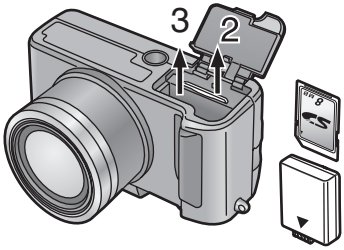
3 **Press ◄ to select [YES].**

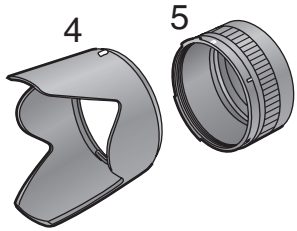
4 **Press the ▼/[REVIEW/SET] button.**
- Printing starts.

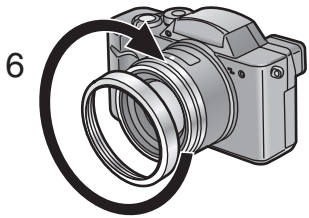
- Press the [MENU] button, and you can stop printing.
- When the number of total images become more than 255, the number of remaining images will be displayed as “----”.

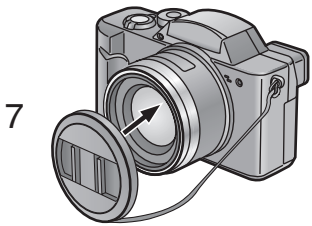
After Use











After using the camera, it is recommended that you complete the following steps:

1 **Turn the power switch to [OFF]. (P17)**
- Close the flash. (P37)

2 **Eject the card. (P15)**

3 **Remove the battery. (P12)**

4 **Remove the lens hood.**

5 **Remove the lens hood adaptor.**

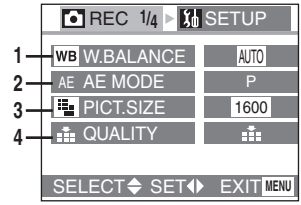
6 **Attach the lens ring.**

7 **Attach the lens cap. (P22)**

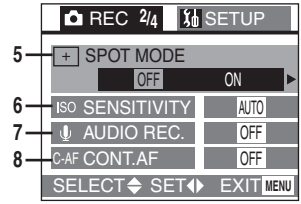
- If you will not be using the camera for a long time, remove the battery. (When you insert the battery again, set the date/time)

The Menu Items

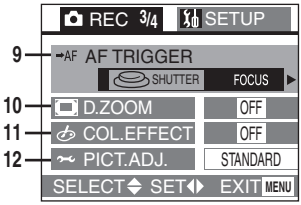
REC mode menu



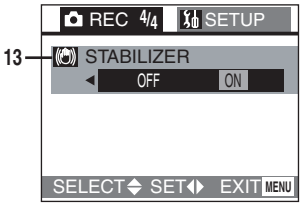
1 W.BALANCE (P58)
2 AE MODE (P29, P45, P46)
3 PICT.SIZE (P43)
4 QUALITY (P44)



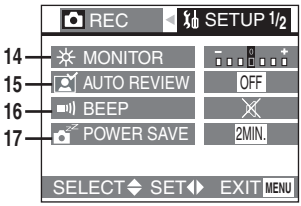
5 SPOT MODE (P52)
6 SENSITIVITY (P61)
7 AUDIO REC. (P42)
8 CONT.AF (P40)



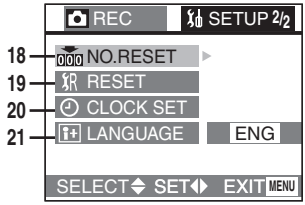
9 AF TRIGGER (P39)
10 D.ZOOM (P35)
11 COL.EFFECT (P56)
12 PICT.ADJ. (P57)



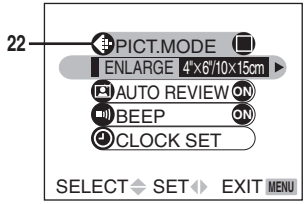
13 STABILIZER (P38)



14 MONITOR/FINDER (P81)
15 AUTO REVIEW (P82)
16 BEEP (P83)
17 POWER SAVE (P84)



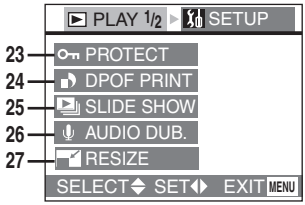
18 NO.RESET (P85)
19 RESET (P86)
20 CLOCK SET (P28)
21 LANGUAGE



Simple mode menu

- For items without number, refer to those with the same name.

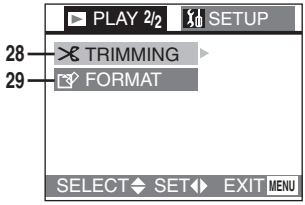
22 PICT.MODE (P31)



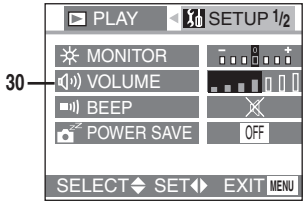
Playback mode menu

- For items without number, refer to those with the same name.

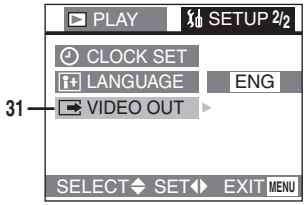
23 PROTECT (P74)
24 DPOF PRINT (P71)
25 SLIDE SHOW (P75)
26 AUDIO DUB. (P77)
27 RESIZE (P78)



28 TRIMMING (P79)
29 FORMAT (P80)



30 VOLUME (P65)



31 VIDEO OUT (P87)

Cautions for Use

In the event of abnormal operation (e.g. if the unit emits smoke or an unusual smell), immediately stop operating the unit and consult the Panasonic Customer Care Centre on 132600.

■ Cautions for Use

Keep the digital camera away from magnetized equipment (such as a microwave oven, TV, video game equipment, etc.).

- If you use the digital camera on or near a TV, images and sounds may be disturbed due to electromagnetic wave radiation.
- Do not use the digital camera near a cell phone because doing so may cause noise to adversely affect the images and sounds.
- Recorded data may be damaged, or images may be distorted by strong magnetic fields created by speakers or large motors.
- Electromagnetic wave radiation generated by a microprocessor may adversely affect the digital camera, causing the disturbance of images and sounds.
- If the digital camera is affected by magnetically charged equipment and does not function properly, turn the camera off and detach the battery or AC adaptor and then connect the battery or AC adaptor again. Thereafter, turn the camera on.

Do not use the digital camera near radio transmitters or high-voltage lines.

- If you record near radio transmitters or high-voltage lines, recorded images or sounds may be adversely affected.

Do not spray insecticides or volatile chemicals onto the digital camera.

- If the digital camera is sprayed with such chemicals, the camera body may be deformed and the surface finish may peel off.
- Do not keep rubber or plastic products in contact with the digital camera for a long period of time.

When you use the digital camera on a beach or similar place, do not let sand or fine dust get into the camera.

- Sand or dust may damage the digital camera or card. (Care should be taken when inserting and removing the card)

When you use your digital camera on a rainy or snowy day or on a beach, make sure that no water enters the digital camera.

- Water may cause the digital camera or card to malfunction. (Irreparable damage may occur)
- If sea water splashes onto the digital camera, wet a soft cloth with tap water, wring it well, and use it to wipe the camera body carefully. Then, wipe it again thoroughly with a soft dry cloth.

Do not use the digital camera for surveillance purpose or other business use.

- If you use the digital camera for a long period of time, the internal temperature increases and, consequently, this may cause malfunction.
- The digital camera is not intended for business use.

Do not use benzine, thinner or alcohol for cleaning the digital camera.

- The camera body may be deformed and the surface finish may peel off.
- Before cleaning the camera, detach the battery or pull out the AC adaptor from the electrical outlet.
- Wipe the digital camera with a soft, dry cloth. To remove stubborn stains, wipe with a cloth that is soaked in a detergent diluted with water and afterward finish wiping with a dry cloth.
- For storing or transporting the digital camera, place it in a bag or case lined with soft pads to prevent the coating on the camera body from being worn.

After use, be sure to take the card out, and detach the battery or pull out the AC adaptor from the electrical outlet.

- If the battery is left on the digital camera for a long time, the voltage drops excessively, and the battery will not function even after it is recharged.

■ Optimal Use of the Battery

The battery is a rechargeable lithium ion battery. Its ability to generate power is based upon the chemical reaction that takes place inside it. This reaction is susceptible to the surrounding temperature and humidity, and, if the temperature is too high or too low, the operating time of the battery becomes shorter.

Be sure to detach the battery after use.

Be sure to detach the battery from the digital camera. (If it is left attached to the digital camera, a minute amount of current is consumed even when the digital camera power is off) If the battery is left attached to the digital camera for a long time, discharge takes place. The battery may become unusable after it is charged.

Dispose of an unusable battery.

- The battery has a limited life.
- Do not throw the battery into fire because it may cause an explosion.

Always keep the terminals of the battery clean.

Prevent the terminals from getting clogged with dirt, dust, or other substances.
If you drop the battery accidentally, check to see if the battery body and terminals are deformed. Attaching a deformed battery to the digital camera may damage the camera.

■ Condensation

When condensation has taken place:
Set the power switch to [OFF] and leave the digital camera in this condition for about 1 hour. When the camera becomes close to the ambient temperature, the fog disappears naturally.

■ Cautions for Storage

Before storing the digital camera, take the card out and detach the battery. Store all the components in a dry place with a relatively stable temperature. (Recommended temperature: 15°C to 25°C, Recommended humidity: 40% to 60%)

Digital camera

- Wrap it with a soft cloth to prevent dust from getting into the camera.
- Do not leave the camera in places that expose it to high temperature.

Battery

- Do not leave the camera and the battery at the place where the temperature is too high, such as inside the car during the midsummer.
- Extremely high or low temperatures will shorten the life of the battery.
- If the battery is kept in smoky or dusty places, the terminal may rust and cause malfunctions.
- Do not allow the battery terminals to come in contact with metal objects (such as necklaces, hairpins, etc.). This can result in a short circuit or heat generation and, if you touch the battery in this condition, you may be badly burned.
- Store the battery in a completely discharged state. To store the battery for a long period of time, we recommend you charge it once every year and store it again after you completely use up the charged capacity.

Card

- When the card is being read, do not remove the card, turn off the power, or subject it to vibration or impact.
- Do not leave the card in places where there is high temperature or direct sunlight, or where electromagnetic waves or static electricity are easily generated.
- Do not bend or drop the card. The card or the recorded content may be damaged.
- After use, be sure to remove the card from the digital camera.
- Do not touch the terminals on the back of the card with your fingers. Do not allow dirt, dust or water to enter it.

AC adaptor

- If the battery is warm, charging takes a longer time than normal.
- If you use the AC adaptor near a radio, radio reception may be disturbed. Keep the AC adaptor 100 cm or more away from radio.
- When the AC adaptor is in use, it may generate whirring sounds. However, this is normal.
- After use, be sure to disconnect the AC cable. (If it is left connected, a minute amount of current is consumed)
- Keep the electrodes of the AC adaptor and battery always clean.

■ LCD Monitor/Viewfinder/Lens Ring

LCD monitor

- In a place with drastic temperature changes, condensation may form on the LCD monitor. Wipe it with soft dry cloth.
- If the digital camera is extremely cold when you turn the power on, the image on the LCD monitor is slightly darker than usual at first. However, as the internal temperature increases, it goes back to the normal brightness.

Extremely high precision technology is employed to produce the LCD monitor screen featuring a total of approximately 114,000 pixels. The result is more than 99.99% effective pixels with a mere 0.01% of the pixels inactive or always lit. However, this is not a malfunction and does not affect the recorded picture.

Viewfinder

- Do not direct the Viewfinder or lens to the sun. Internal components may be seriously damaged.

Extremely high precision technology is employed to produce the Viewfinder screen featuring a total of approximately 114,000 pixels. The result is more than 99.99% effective pixels with a mere 0.01% of the pixels inactive or always lit. However, this is not a malfunction and does not affect the recorded picture.

Lens ring

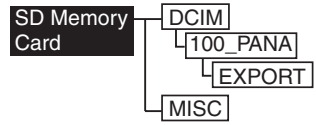
- If you push the zoom lever toward W during recording with the filter or conversion lens attached to the digital camera, 4 corners of the image may become dark (vignetting). For details, refer to the operating instructions of your accessories.
- Be sure to keep the lens ring attached to the digital camera so as to shut out unnecessary light.

■ SD Slide Show

If setting the SD Slide Show with the [SD Viewer for DSC] which is in the supplied CD-ROM, when playing back, the message “START SD SLIDE SHOW?” is displayed. Select [YES] and press the ▼/[REVIEW/SET] button to start the SD Slide Show. Select [NO] and press the ▼/[REVIEW/SET] button to start normal playback.

■ Folder Composition

When the Memory Card where data are recorded is inserted into a PC, the folders shown below will be displayed.



- In the 100_PANA folder it is possible to record up to 999 images.
- In the MISC folder it is possible to record the files that have been set with DPOF settings.

Warning Indications

[NO MEMORY CARD]
Insert the Memory Card.

[THIS MEMORY CARD IS PROTECTED]
Cancel the Memory Card lock.

[NO VALID IMAGE TO PLAY]
Carry out playback after recording or after inserting the Memory Card with a recorded image.

[MEMORY CARD FULL]/ [NOT ENOUGH MEMORY IN THE CARD]
Insert a new Memory Card or delete the useless data.

[REMOVE LENS CAP AND PRESS (SET) BUTTON]
Remove the lens cap and then press the ▼/[REVIEW/SET] button.

[MEMORY CARD ERROR]
Failed access to Memory Card.
Insert the card again.

[READ ERROR]
Data reading error.
Play it back again.

[WRITE ERROR]
Data writing error.
Turn the camera [OFF] and remove the card. Then insert the card and turn the camera back [ON]. Be sure camera is [OFF] before removing or inserting the card to avoid damaging the card.

[PLEASE SET THE CLOCK]
This message is displayed when you use the camera for the first time or you do not use the camera for a long time.
Set the clock again.

[THIS PICTURE IS PROTECTED]
After cancelling the protect setting, you can delete or overwrite the image.

[THIS PICTURE CAN'T BE DELETED]/[SOME PICTURES CAN'T BE DELETED]
If the image is not based on the DCF standard, it is not possible to be deleted.

[NO ADDITIONAL DELETE SELECTIONS CAN BE MADE]
You have exceeded the number of images that can be set at once with multi delete setting.

[CAN'T BE SET ON THIS PICTURE]/[CAN'T BE SET ON SOME PICTURES]
If the image is not based on the DCF standard, it is not possible to set the DPOF.

[MEMORY CARD ERROR FORMAT THIS CARD?]
The format of this card cannot be recognized by the camera. Format this again with the camera.

[MODE DIAL IS NOT IN THE PROPER POSITION]
This message is displayed when you turn on the camera with the mode dial in the wrong position.
Rotate the mode dial to the proper position.

Troubleshooting

1: The power does not turn on.

1-1: Are the battery and the AC adaptor correctly connected? Check the connection.

1-2: Is the battery sufficiently charged? Use a battery that has been sufficiently charged.

2: As the power is turned on, it turns off immediately.

2: Is the battery charge insufficient to operate the camera? Charge the battery or replace it with charged one.

3: The lens and the Viewfinder are fogged.

3: Has condensation occurred? Carrying the digital camera from a cold place to a warm place could cause condensation on the camera. Wait until condensation disappears.

4: The image cannot be recorded.

4-1: Is the Memory Card inside?

4-2: Is the mode dial correctly set ? Check it.

4-3: There is no memory capacity left on the card. Before recording, delete some images.

5: The image is not displayed on the LCD monitor.

5: Is the the image displayed on the Viewfinder? Press the [DISPLAY] button to switch to LCD monitor display.

6: The LCD monitor/Viewfinder is too bright or dark.

6: Adjust the brightness of the LCD monitor/Viewfinder.

7: Flash does not fire.

7: Is the flash closed? Press the [OPEN] button to open the flash.

8: The display or images on the LCD monitor/Viewfinder are not focused.

8: Set the mode dial to the mode corresponding to the distance to the subject.

9: The image cannot playback.

9-1: Is the Card inside?

9-2: There is no image in the Card.

9-3: The mode dial is not set to playback [].

10: The image is not displayed on the television.

10-1: Is the camera correctly connected with the TV? Check it.

10-2: Set the TV to video input mode.

11: When connecting to PC, images cannot be transferred.

11-1: Check that the camera is correctly connected to the PC.

11-2: Is the camera correctly recognized by the PC?

12: The clock setting is reset.

12-1: If you do not use the camera for a long time, the clock setting may be reset. When the message [PLEASE SET THE CLOCK] appears, set the clock again.

12-2: When you take a picture before setting the clock, [0:00 0. 0. 0] is recorded.

13: This camera chatters when it is shaken.

13: This is the sound coming from the lens. When you turn the power [ON], the sound is stopped. This is not a malfunction.

14: Some pixels are inactive or always lit on the LCD monitor.

14: This is not a malfunction. These pixels do not affect the recorded images.

Specifications

Digital Camera Information for your safety

Power Source:	DC 8.4 V
Power Consumption:	2.6 W (When recording with LCD Monitor) 2.4 W (When recording with Viewfinder) 2.4 W (When playing back with LCD monitor) 2.2 W (When playing back with Viewfinder)
Camera Effective pixels	2,000,000 pixels
Image sensor	1/3.2 inch CCD, total pixel number 2,110,000 pixels Primary color filter
Lens	Optical 12× zoom, f=4.6 – 55.2 mm (35 mm film camera equivalent: 35 – 420 mm)/F2.8
Digital zoom	Single: 3×, Burst: 2×
Focus	TTL Auto/Macro Spot AF (Spot mode)
Focus range	30 cm (Wide)/120 cm (Tele) – ∞ Macro/Simple/Aperture-priority AE/Shutter-priority AE: 5 cm (Wide)/120 cm (Tele) – ∞
Shutter system	Electronic shutter+Mechanical shutter
Burst recording	4 frames/second, Max 7 frames (standard)/ 4 frames (fine)
Motion image recording	320×240 pixels (10 frames/second with audio)
ISO sensitivity	AUTO/50/100/200/400
Shutter speed	8th – 1/2,000th Motion image mode: 1/30th – 1/2,000th
White balance	AUTO/Daylight/Cloudy/Halogen/White set
Exposure (AE)	Program AE/Aperture-priority AE (A)/Shutter-priority AE (S) Exposure compensation (1/3 EV Step, −2 – +2 EV)
Metering mode	Multi/Spot (Spot mode)
LCD monitor	1.5 inch low-temperature polycrystalline TFT LCD (114,000 pixels) (field of view ratio 100%)
Viewfinder	Color electrical Viewfinder (114,000 pixels) (field of view ratio 100%) (with dioptor adjustment) (−4 +4 dioptor)
Flash	Built-in pop up flash flash range: (ISO100) approx. 30 cm – 2.1 m (Wide)/ approx. 120 cm – 2.1 m (Tele) AUTO, AUTO/Red-eye reduction, Forced ON, Slow sync./Red-eye reduction, Forced OFF
Microphone	Monaural
Speaker	Monaural
Recording media	SD Memory Card/MultiMediaCard
Recording size	1600×1200 pixels, 1280×960 pixels, 640 ×480 pixels (Still picture) 320×240 pixels (Motion image)
Quality	Fine/Standard

Recording file format	
Still Picture	JPEG (Design rule for Camera File system, based on Exif 2.2 standard), DPOF corresponding
Still picture with audio	JPEG (Design rule for Camera File system, based on Exif 2.2 standard)+640×480 pixels QuickTime (still picture with audio)
Motion image	QuickTime Motion JPEG (motion image with audio)
Interface	
Digital	USB
Analog video/audio	NTSC/PAL Composite/Audio line output (monaural)
Terminal	
USB	5 pin Mini USB
Analog video/audio	ϕ 2.5 mm jack
DC IN	EIAJ type 3 jack
Dimensions (W×H×D)	114×70.3×83.3 mm (excluding the projection part)
Weight	Approx. 318 g (excluding Memory Card and battery) Approx. 350 g (with Memory Card and battery)
Operating Temperature	0°C – 40°C
Operating Humidity	10% – 80%

Battery Charger/AC Adaptor
(Panasonic DE-928B) Information for your safety

Input	110 – 240 V ~ 50/60 Hz, 0.29 A
Output	DIGITAL CAMERA 8.4 V ⎓ 1.2 A CHARGE 8.4 V ⎓ 0.65 A

Battery Pack (lithium-ion)
(Panasonic CGA-S002E) Information for your safety

Voltage/capacity	7.2 V, 680 mAh

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Web Site: http://www.panasonic.co.jp/global/